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# MINERAL INDUSTRY SURVEYS

U. S. DEPARTMENT OF THE INTERIOR  
BUREAU OF MINES  
WASHINGTON, D. C. 20240



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JANUARY 1975

PETROLEUM PRODUCTS SURVEY  
NO. 88

## MOTOR GASOLINES, SUMMER 1974

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# MOTOR GASOLINES, SUMMER 1974

by

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## INTRODUCTION

The properties of motor fuels sold through service stations in the United States are reported in accordance with a cooperative agreement between the American Petroleum Institute and the Bureau of Mines in the United States Department of the Interior. By agreement with the American Petroleum Institute, identification of the data is confidential.

This report presents analytical data for 3,758 samples that represent the products of 42 companies. Company representatives collected the samples during June, July, and August 1974. As in previous surveys, the gasolines covered by this survey include those from both large and small suppliers. Laboratories of various refiners, motor manufacturers, and chemical companies obtained and submitted the data to the Bureau of Mines for analysis and compilation. Motor-gasoline survey reports published during the past 10 years are listed on page 5.

Analytical tests required for a complete gasoline analysis were not available for many of the samples. Tests in this category, the number of test results available and used in this report, and the percent of the total samples represented for that test include the following:

Test	Number of samples used	Percent of total samples
Gravity	2,876	77
Sulfur content	1,388	37
Phosphorus content	564	15
Lead content	2,551	68
Distillation	2,859	76
Vapor pressure	2,859	76

## SUMMARY

The characteristics of motor gasolines for summer 1974 are summarized in table 1, and those for summer 1973 are shown in table 2 for comparison. Figures 1 and 2 show trends for several years of some of the more important characteristics.

The following data list trends of national average octane numbers for the last four gasoline surveys:

	Regular-price Octane number			Premium-price Octane number		
	Research	Motor	(R + M)/2	Research	Motor	(R + M)/2
Winter 1972-73	93.9	86.4	90.2	99.6	92.2	95.9
Summer 1973	93.5	86.1	89.8	99.3	91.9	95.6
Winter 1973-74	93.4	86.0	89.7	99.1	91.7	95.4
Summer 1974	93.4	85.9	89.7	98.9	91.5	95.2

Table 3 shows regional average octane numbers of regular- and premium-price fuels including the sum of the research and motor octane numbers divided by two. Table 4 shows average data from each district and gives the national average for all properties.

Data for third grade (sub-regular), intermediate grade, and super-premium gasolines are included in table 5.

Table 6 lists all of the low-lead samples (0.08-0.50 g/gal) within each district and table 7 gives the unleaded gasolines (0.00-0.07 g/gal).

## DISCUSSION OF DATA

Terms used in the surveys have the following meanings:

District: The designation of a marketing area for collecting samples and data. The present arrangement of 17 districts, developed by the CFR Committee<sup>1/</sup>, was selected with reference to the specifications on motor gasolines, refinery locations, population centers, and arteries of commerce such as navigable rivers. The states or parts of states in each district are indicated in the headings of table 3 and are shown in figure 6.

Brand: The gasoline sold within a given price group and by a given trade name.

Item: The index number assigned to a given brand in a given district. The data for each item represent the average of those submitted for that brand in that district. The number of samples represented follows the item number.

Sample: The supply of gasoline obtained at the service station and analyzed in the Laboratory.

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<sup>1/</sup> Coordinating Fuel and Equipment Research Committee (formerly the Coordinating Fuel Research Committee) of the Coordinating Research Council, Inc. From 1935 to 1948 the motor-gasoline surveys were conducted under a cooperative agreement between the Coordinating Research Council and the Bureau of Mines.



Table 3 presents the following data by districts: gravity in degrees API, sulfur, gum, phosphorus, lead, research- and motor-method octane numbers, the calculated property of the sum of research and motor octane numbers divided by two [antiknock (octane) index], Reid vapor pressure, calculated data for vapor-liquid ratio of 20, and distillation characteristics of the motor fuels collected. The tests were made according to American Society for Testing and Materials standards.<sup>2/</sup>

Corrosion test results are not included in the district tables as all the reported numbers are "1", according to the corrosion scale given in table 1 of ASTM D130.<sup>2/</sup>

Gum test data are reported to the nearest whole number. The distillation temperatures, corrected to barometric pressure at 760 mm Hg, are those for percent evaporated.

Average values follow the tabulated data in table 3 for the respective grades of fuel shown in each district. The averages of the various properties were computed without reference to the total number of samples represented by each item.

The district averages from table 3 are shown in table 4 with the number of brands and number of samples for regular- and premium-price gasoline in each district. The national averages for each of the properties of fuels sold in each of the 17 districts are given at the end of the table.

Table 5 shows data for third grade (sub-regular), intermediate grade, and super-premium motor gasolines. Table 6 and 7 present special listings of the samples according to lead content. Table 6 lists the low-lead samples (0.08-0.50 g/gal) and table 7 lists the unleaded samples (0.00-0.07 g/gal).

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<sup>2/</sup> American Society for Testing and Materials, 1973 Annual Book of ASTM Standards, Part 17, Petroleum Products — Fuels; Solvents; Burner Fuel Oils; Lubricating Oils; Cutting Oils; Lubricating Greases; Hydraulic Fluids, Philadelphia, Pa., 1,342 pp.

Figures 1 and 2 illustrate trends in the national averages of certain properties of regular- and premium-price gasolines, respectively, since the summer of 1946. Averages for the winter surveys are plotted on the lines that represent the years and for the summer surveys between the lines. Octane-number points are connected for successive surveys, but those for Reid vapor pressure and distillation temperatures are plotted separately for summer and winter surveys. Charts that show plots of these properties from 1935 (except winter 1941-42 and summer 1942) are presented in the survey report on motor gasolines for winter 1964-65 and preceding reports.<sup>3/</sup>

Figures 3, 4, and 5 illustrate distribution (frequency) of octane values by numbers of samples for all grades of fuel represented. Each bar represents one-half octane number.

Tables 8, 9, and 10 show the percentages of all samples for each district at each whole octane number level, cumulated according to increasing octane number.

The districts, locations, and number of samples of gasoline represented are listed in table 11 and shown on the map in figure 6. The locations are named for the principal cities in the respective vicinities, and include suburbs and adjacent communities. The area of the circle at each location is proportional to the number of samples obtained. The summary at the end of table 11 lists by district, the number of locations, samples, and the percentages of the latter based on the total reported.

This report does not discuss the significance of the data presented. Reference may be made to the ASTM specification<sup>4/</sup> for motor gasoline and its appendixes, "Significance of ASTM Specifications for Motor Gasoline", at a technical library.

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<sup>3/</sup> Blade, O. Co., Motor Gasolines, Winter 1964-65. Bureau of Mines Petroleum Products Survey No. 40, 38 pp. (in cooperation with the American Petroleum Institute).

<sup>4/</sup> American Society for Testing and Materials, Standard Specifications for Gasoline (D439): 1973 Annual Book of ASTM Standards, Part 17 (see footnote 2), pp. 169-181.



## LIST OF MOTOR-GASOLINE SURVEY REPORTS, 1965-74

<u>Author</u>	<u>Season and Year</u>	<u>PPS Report No.</u>	<u>Published</u>	<u>No. of Pages</u>
In cooperation with the American Petroleum Institute				
Blade, O. C.	Summer 1965	43	Jan. 1966	39
Do.	Winter 1965-66	45	June 1966	38
Do.	Summer 1966	48	Dec. 1966	38
Do.	Winter 1966-67	50	June 1967	38
Do.	Summer 1967	53	Dec. 1967	38
Do.	Winter 1967-68	55	June 1968	39
Do.	Summer 1968	58	Jan. 1969	38
Do.	Winter 1968-69	60	July 1969	38
Blade, O.C. and Ella Mae Shelton	Summer 1969	63	Jan. 1970	38
Shelton, Ella Mae and C. M. McKinney	Winter 1969-70	66	Aug. 1970	47
Do.	Summer 1970	68	Jan. 1971	49
Do.	Winter 1970-71	70	June 1971	54
Shelton, Ella Mae	Summer 1971	73	Jan. 1972	59
Do.	Winter 1971-1972	75	June 1972	53
Do.	Summer 1972	78	Jan. 1973	53
Do.	Winter 1972-1973	80	June 1973	60
Do.	Summer 1973	83	Jan. 1974	59
Do.	Winter 1973-74	85	June 1974	59
Do.	Summer 1974	This report		

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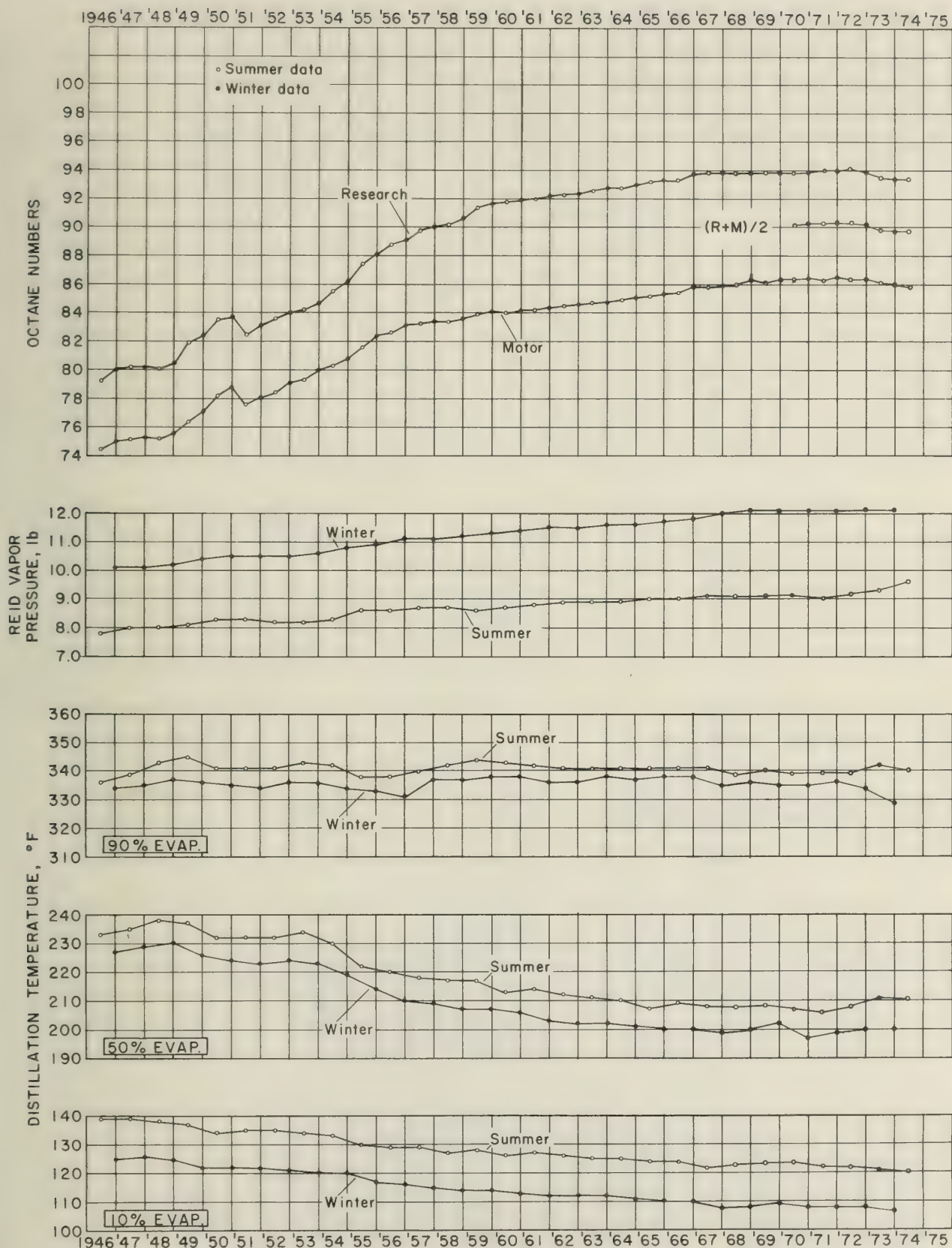


FIGURE 1.—Trends of Certain Characteristics of Regular-Price Gasolines.





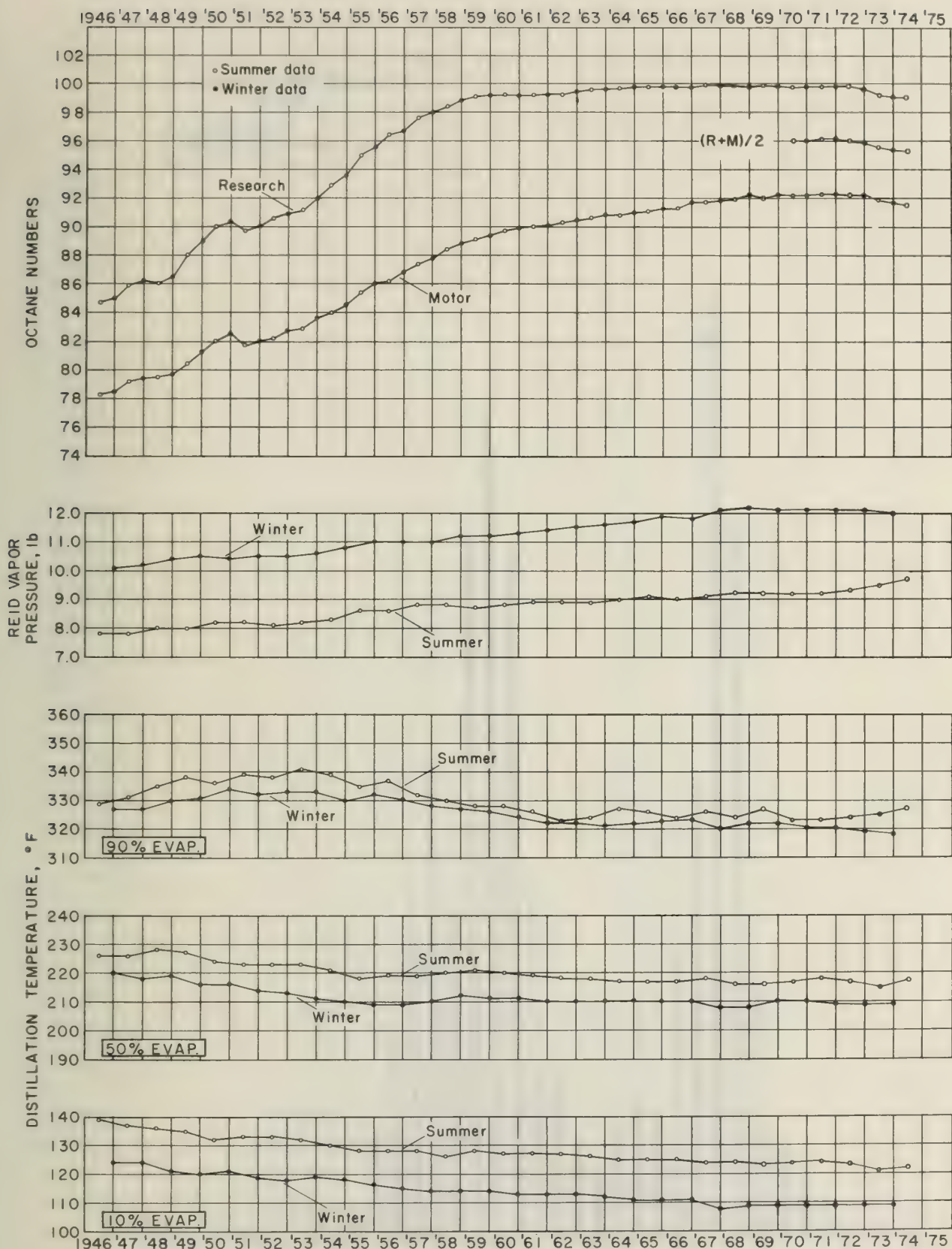


FIGURE 2.—Trends of Certain Characteristics of Premium-Price Gasolines.





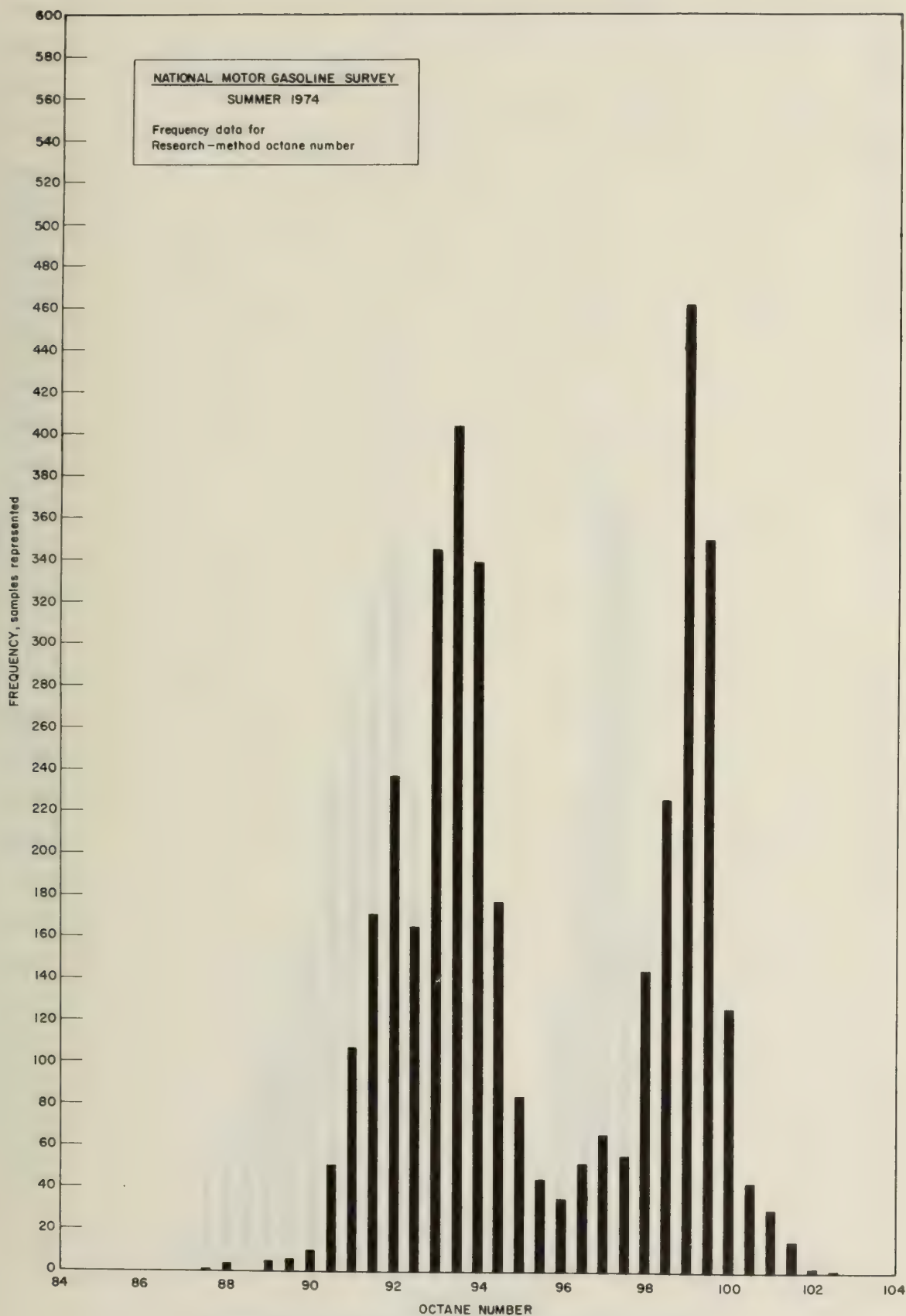


FIGURE 3.- Distribution of research-method octane numbers.





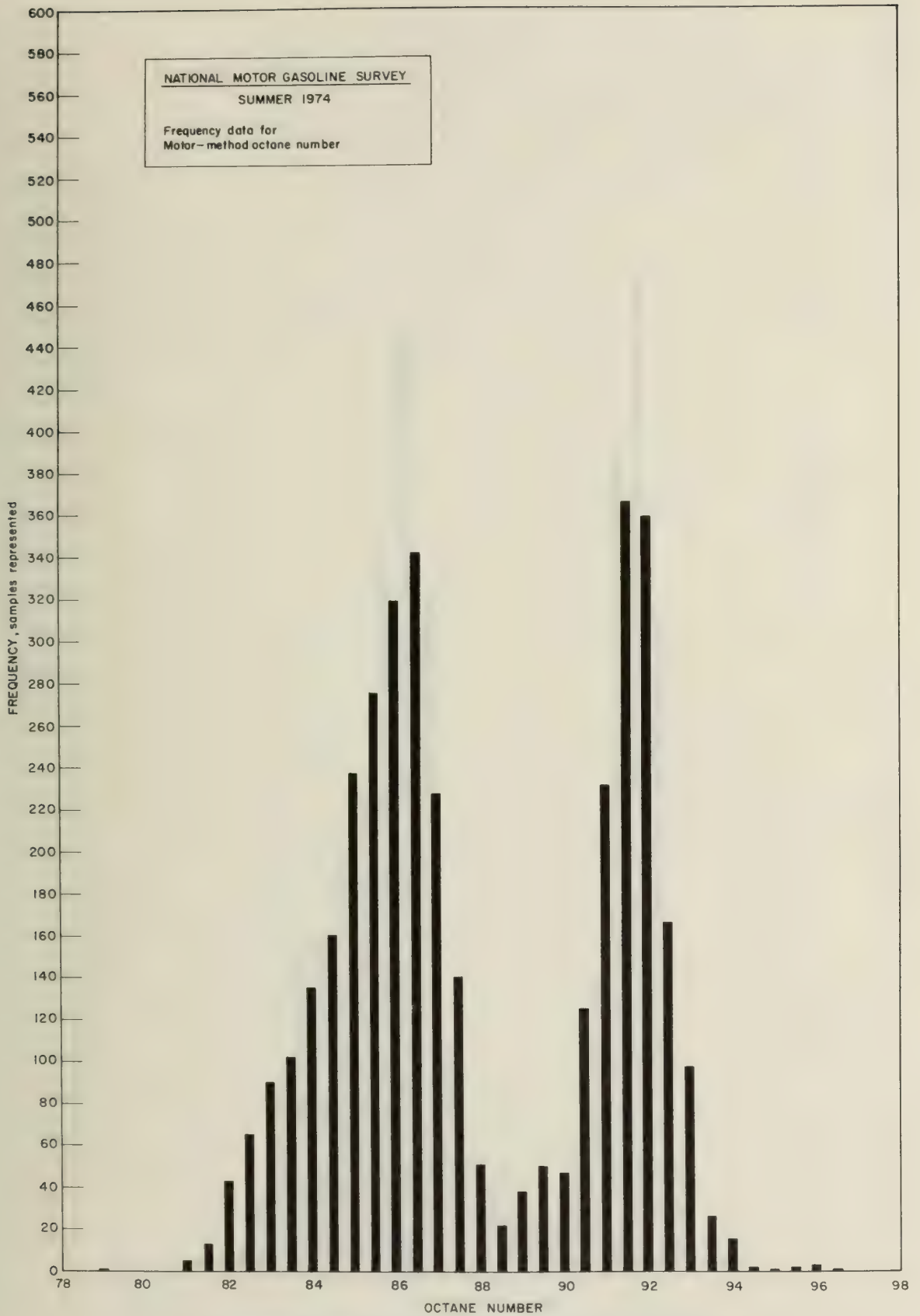


FIGURE 4.-Distribution of motor-method octane numbers.





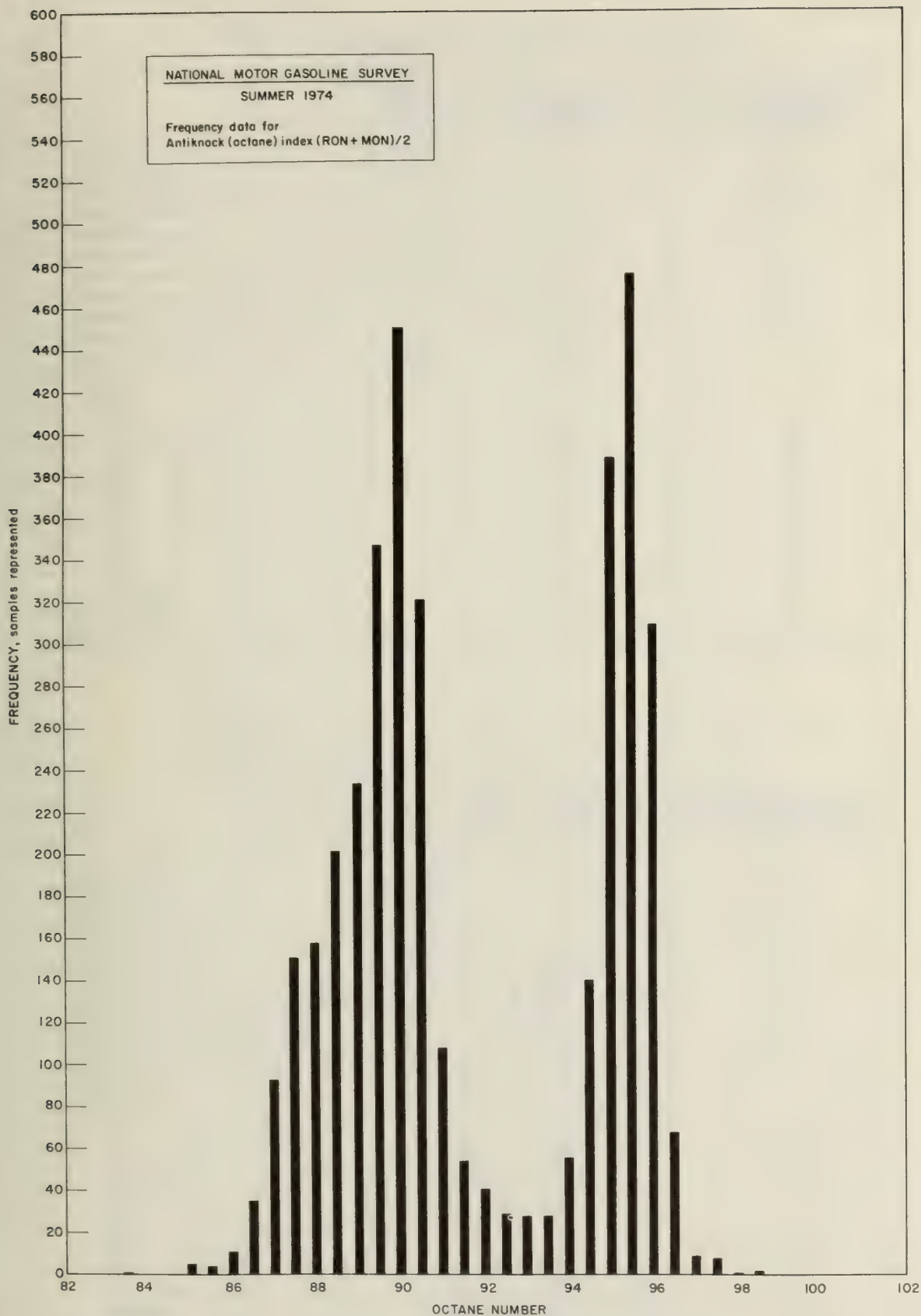


FIGURE 5.—Distribution of antiknock (octane) index  $(RON + MON)/2$ .





TABLE 1. - Summary of values, motor gasoline survey, summer 1974

Test	ASTM method	Regular-price gasoline	Premium-price gasoline
		Average	Average
Gravity, °API	D287	60.2	61.7
Corrosion, No.	D130	1	1
Sulfur content, wt %	D1266	0.039	0.027
Gum, mg/100 ml	D381	1	1
Phosphorus, g/gal	D3231	0.001	0.001
Lead, g/gal	D526	1.90	2.32
Octane number, Research	D2699	93.4	98.9
Octane number, Motor	D2700	85.9	91.5
(Research + motor octane Nos.)/2		89.7	95.2
Reid vapor pressure, lb	D323	9.6	9.7
Vapor-liquid ratio of 20, °F	D439	135	136
Distillation	D86		
Temp, °F			
IBP		91	90
5% evaporated		107	107
10% Do.		120	122
20% Do.		142	146
30% Do.		164	172
50% Do.		211	217
70% Do.		265	257
90% Do.		340	327
95% Do.		374	362
End point		414	407
Residue, vol %		1.0	1.0
Loss, vol %		1.4	1.7

TABLE 2. - Summary of values, motor gasoline survey, summer 1973

Test	ASTM method	Regular-price gasoline	Premium-price gasoline
		Average	Average
Gravity, °API	D287	60.3	61.7
Corrosion, No.	D130	1	1
Sulfur content, wt %	D1266	0.040	0.026
Gum, mg/100 ml	D381	1	1
Phosphorus, g/gal	D3231	0.004	0.003
Lead, g/gal	D526	2.01	2.42
Octane number, Research	D2699	93.5	99.3
Octane number, Motor	D2700	86.1	91.9
(Research + motor octane Nos.)/2		89.8	95.6
Reid vapor pressure, lb	D323	9.3	9.5
Vapor-liquid ratio of 20, °F	D439	136	137
Distillation	D86		
Temp, °F			
IBP		91	90
5% evaporated		108	107
10% Do.		121	121
20% Do.		142	146
30% Do.		163	171
50% Do.		211	215
70% Do.		265	255
90% Do.		342	325
95% Do.		378	361
End point		417	405
Residue, vol %		1.0	1.0
Loss, vol %		1.6	1.7

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1974  
AVERAGE DATA FOR DIFFERENT BRANDS

DIST. 1 NORTHEAST

MAINE, MASS., N.H., VT., AND NORTHERN N.Y.

REGULAR-PRICE GASOLINE

ITEM	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER			RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86											RES LOSS % %	
							RES, ASTM D2699	MOT, ASTM D2700	R+M --=			TEMPERATURE, F (CORRECTED TO 760 MM HG)												
												PERCENT EVAPORATED												
												IBP	5	10	20	30	50	70	90	95	EP			
1	2	62.6	0.065	-	-	2.34	94.3	86.6	90.5	10.5	131	91	110	122	142	161	206	255	324	378	397	1.1	0.9	
2	5	61.7	.033	-	-	3.29	95.1	87.4	91.3	10.0	132	91	106	120	140	161	205	257	321	343	379	1.1	1.8	
3	2	60.0	.028	-	-	1.72	94.4	86.3	90.4	10.7	129	88	106	112	131	153	218	279	349	378	430	.7	1.3	
4	2	60.4	.084	-	-	1.63	95.0	85.3	90.2	11.8	123	86	98	110	132	156	206	264	346	371	408	1.3	1.7	
5	7	61.6	.049	1	-	1.63	93.4	86.2	89.8	10.4	130	91	106	117	136	158	205	262	337	370	409	1.1	2.5	
6	3	60.4	.005	-	-	2.55	93.7	87.6	90.7	10.8	129	85	107	115	140	159	211	275	336	354	398	.9	1.4	
7	6	59.3	.021	-	-	1.45	93.4	85.9	89.7	9.6	139	91	108	122	151	179	227	286	352	387	418	1.0	1.7	
8	6	62.3	.052	-	-	2.78	94.2	87.2	90.7	11.1	124	83	100	109	128	151	200	264	351	391	428	.9	1.8	
9	4	60.7	.039	1	0.001	1.13	93.2	84.9	89.1	10.4	135	93	98	126	151	175	221	267	351	364	412	.9	2.6	
10	1	63.2	-	-	-	2.70	94.2	87.0	90.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11	2	59.4	.079	-	-	1.76	94.3	85.1	89.7	11.2	127	88	105	116	134	157	209	271	345	361	404	.7	1.3	
AVERAGE		61.1	.046	1	.001	2.09	94.1	86.3	90.2	10.7	130	89	104	117	139	161	211	268	341	370	408	1.0	1.6	
SAMPLES	40																							



TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1974  
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED  
DIST. 1 NORTHEAST--CONTINUED  
MAINE, MASS., N.H., VT., AND NORTHERN N.Y.  
PREMIUM-PRICE GASOLINE

ITEM	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER		RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86											RES % LOSS	
							RES, ASTM D2699	MOT., ASTM D2700			R+M ---	TEMPERATURE, F (CORRECTED TO 760 MM HG)											
												PERCENT EVAPORATED											
												IBP	5	10	20	30	50	70	90	95	EP		
12	2	60.3	0.033	-	-	2.84	98.9	91.2	95.1	11.7	127	85	104	120	145	169	213	252	315	341	400	0.7	1.3
13	4	59.1	.033	-	-	2.38	98.2	90.0	94.1	10.3	132	90	103	116	137	163	215	272	335	364	398	1.0	1.7
14	6	58.3	.023	-	-	3.15	100.1	91.9	96.0	10.4	132	88	105	117	141	169	219	269	330	371	415	1.3	1.7
15	2	59.4	.015	-	-	2.58	100.1	91.6	95.9	11.0	131	90	107	120	144	169	225	273	343	380	425	1.0	1.0
16	6	59.6	.020	1	-	2.63	99.2	91.0	95.1	10.5	130	87	101	112	137	166	220	272	328	359	396	1.1	2.0
17	3	59.1	.005	-	-	2.71	99.6	91.9	95.8	10.5	131	98	103	116	136	152	221	274	335	365	386	1.0	1.0
18	6	59.2	.016	-	-	2.70	98.7	90.8	94.8	10.5	132	88	102	116	141	169	224	271	340	373	407	1.1	1.8
19	6	63.4	.017	-	-	2.30	99.2	92.5	95.9	11.8	121	84	97	106	125	148	199	245	307	349	396	1.1	1.8
20	1	66.7	-	-	-	2.69	98.9	92.0	95.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	2	52.9	.006	-	-	.04	101.1	90.3	95.7	11.3	131	88	117	123	146	172	224	251	309	336	400	.8	.7
AVERAGE		59.8	.019	1	-	2.40	99.4	91.3	95.4	10.9	130	89	104	116	139	164	218	264	327	360	403	1.0	1.5
SAMPLES		38																					



TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1974  
 DIST. 2 MID-ATLANTIC COAST--CONTINUED  
 R.I., CONN., N.J., DEL., MD., VA., CENTRAL AND SOUTHERN N.Y., AND EASTERN PA.  
 AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

PREMIUM-PRICE GASOLINE

ITEM	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER		RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86													RES % LOSS %	
							RES, ASTM D2699	MOT, ASTM D2700			R+M ---	TEMPERATURE, F (CORRECTED TO 760 MM HG)													
												IBP	PERCENT EVAPORATED												
													5	10	20	30	50	70	90	95	EP				
38	9	60.8	0.032	1	0.004	2.71	98.6	91.2	94.9	10.7	130	85	102	116	141	166	214	256	323	359	408	1.0	1.4		
39	2	60.3	.027	-	-	2.40	98.8	91.6	95.2	10.0	132	89	106	118	137	158	209	258	329	365	416	1.0	1.0		
40	4	57.5	.040	1	.001	3.42	98.9	91.0	95.0	9.8	140	85	111	130	160	186	228	262	314	345	394	1.0	1.8		
41	1	60.4	.029	0	.000	2.82	98.8	90.2	94.5	11.1	131	84	99	119	147	174	221	264	335	-	416	1.0	4.0		
42	2	60.8	.036	-	-	2.45	98.9	91.8	95.4	9.7	129	85	96	107	125	147	199	245	323	372	408	.6	.4		
43	7	58.0	.032	1	.003	1.64	98.1	89.1	93.6	9.4	137	90	107	120	144	167	218	268	321	343	380	.7	1.7		
44	23	59.7	.024	1	.001	2.93	100.1	91.8	96.0	9.9	134	90	104	118	141	166	218	263	325	357	405	1.0	2.0		
45	10	60.3	.020	2	.001	2.53	99.8	91.9	95.9	10.0	134	87	105	119	141	165	218	267	338	366	414	1.1	1.8		
46	3	58.8	.027	1	.001	2.78	98.6	90.8	94.7	10.8	132	87	105	118	144	167	223	268	327	355	412	1.1	1.5		
47	20	58.6	.016	1	.001	2.47	98.7	91.7	95.2	10.5	133	87	101	115	140	169	231	275	328	363	412	1.0	1.8		
48	15	59.2	.015	0	.001	2.45	99.1	91.7	95.4	10.2	131	89	101	114	134	157	216	266	333	363	404	1.1	1.5		
49	5	60.8	.040	0	-	2.31	98.4	91.2	94.8	10.1	132	89	105	116	136	160	219	270	333	364	410	1.3	1.7		
50	19	60.7	.020	1	.001	2.19	98.8	91.0	94.9	9.9	134	88	103	118	141	165	218	263	330	365	407	1.1	1.8		
51	18	60.9	.028	1	.001	2.46	100.1	92.0	96.1	10.4	129	89	100	113	133	154	206	254	323	357	401	1.0	2.0		
52	6	60.9	.041	-	-	2.52	98.8	91.7	95.3	10.3	131	86	103	115	137	162	212	256	326	364	414	1.0	1.2		
53	3	60.9	.035	1	.001	2.29	98.3	90.5	94.4	10.1	135	84	96	119	148	175	221	266	354	372	423	1.0	2.5		
54	11	59.2	.017	1	.001	2.46	98.6	91.6	95.1	10.5	130	88	101	114	136	158	217	274	339	369	417	1.0	1.9		
55	11	55.5	.010	1	.001	.01	100.8	90.3	95.6	10.5	131	86	99	114	139	168	219	247	311	345	394	.9	1.9		
AVERAGE	169	59.6	.027	1	.001	2.38	99.0	91.2	95.1	10.2	133	87	102	117	140	165	217	262	328	360	408	1.0	1.8		



TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1974  
 AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 3 SOUTHEAST  
 N.C., S.C., GA., FLA., ALA., AND EASTERN TENN.

REGULAR-PRICE GASOLINE

ITEM	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER		RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86													RES X	LOSS X	
							RES, ASTM D2699	MOT., ASTM D2700			R/M --	TEMPERATURE, F (CORRECTED TO 760 MM HG)														
												PERCENT EVAPORATED														
												IBP	5	10	20	30	50	70	90	95	EP					
56	4	61.0	0.041	-	-	2.13	93.7	86.5	9.5	134	89	107	119	139	160	202	260	336	373	415	1.1	1.2				
57	20	60.5	.023	-	-	2.09	94.7	86.3	9.4	133	91	106	118	135	155	200	265	345	376	416	1.0	1.6				
58	2	60.1	-	-	-	2.31	93.8	86.7	9.3	139	92	109	122	142	162	213	268	345	376	420	.6	.9				
59	2	61.5	-	-	-	2.11	93.6	87.1	9.0	134	94	111	121	138	157	201	262	331	378	410	.6	.9				
60	8	59.9	.032	1	0.001	1.62	93.6	86.1	9.7	134	89	106	122	142	172	220	270	349	376	422	1.0	2.1				
61	4	60.7	.043	-	-	1.84	93.8	86.4	9.4	133	89	107	118	136	154	204	263	338	372	407	1.1	1.0				
62	3	61.4	.021	-	-	2.80	93.9	86.4	9.4	131	92	104	115	133	155	190	252	333	358	409	1.3	1.7				
63	1	57.6	.013	-	-	1.64	94.6	85.9	90.3	-	-	-	-	-	-	-	-	-	-	-	-	-				
64	20	59.8	.039	-	-	2.23	94.0	86.7	9.4	137	93	108	123	144	165	214	266	337	367	414	1.0	1.7				
65	2	61.2	.055	-	-	1.76	93.5	86.6	9.4	135	90	107	119	138	161	215	277	351	384	420	1.0	1.0				
66	14	61.1	.037	-	-	2.41	92.9	86.9	9.8	133	87	105	117	140	164	206	260	343	374	415	1.0	1.9				
67	3	59.9	-	-	-	1.55	94.3	86.1	9.8	135	87	106	118	142	171	222	270	342	371	413	1.2	.8				
68	4	60.5	.038	-	-	2.03	93.6	86.3	9.5	134	91	108	119	138	157	208	273	351	382	426	1.0	1.3				
69	19	59.2	.051	-	-	2.58	93.7	87.1	9.5	136	90	107	123	148	172	220	274	348	383	415	1.0	1.7				
70	12	59.4	.019	-	-	2.80	94.2	87.1	9.9	132	89	103	116	136	158	212	279	365	398	429	1.0	1.7				
71	59	60.4	.056	1	-	2.60	93.2	86.3	9.2	136	93	108	120	140	161	211	270	336	381	415	1.0	2.0				
72	10	62.3	.028	-	-	2.60	93.7	88.2	9.3	133	88	109	116	132	152	202	269	334	361	399	1.2	1.3				
AVERAGE	187	60.4	.035	1	.001	2.18	93.8	86.6	9.4	135	90	107	119	139	161	209	267	343	376	415	1.0	1.4				

SAMPLES

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1974  
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 3 SOUTHEAST--CONTINUED  
N.C., S.C., GA., FLA., ALA., AND EASTERN TENN.

PREMIUM-PRICE GASOLINE

ITEM	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER				RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86												RES LOSS % %																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
							RES, ASTM D2699	MOT., ASTM D2700	R+M --=	2			TEMPERATURE, F (CORRECTED TO 760 MM HG)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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73	1	60.2	0.024	-	-	2.97	98.7	91.4	95.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1974  
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 4 APPALACHIAN  
OHIO, W. VA., WESTERN N.Y., WESTERN PA., EASTERN KY., AND PART OF MD.

REGULAR-PRICE GASOLINE

ITEM	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER		RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86																RES % LOSS	RES % LOSS			
							RES, ASTM D2699	MOT, ASTM D2700			R+M ---	TEMPERATURE, F (CORRECTED TO 760 MM HG)																			
												PERCENT EVAPORATED																			
												5	10	20	30	50	70	90	95	EP											
90	5	59.3	0.027	-	-	1.22	92.9	84.8	88.9	139	89	103	119	146	174	223	274	347	395	437	1.0	2.0									
91	13	60.4	.026	-	-	2.01	94.3	86.4	90.4	132	87	103	117	138	161	211	271	341	376	423	1.0	1.7									
92	7	59.9	.032	-	-	1.56	94.1	86.4	90.3	130	86	101	114	135	157	211	271	346	382	423	1.0	1.7									
93	7	59.3	.022	0	0.004	1.13	94.3	86.3	90.3	130	86	102	116	140	164	214	269	338	372	426	1.0	1.3									
94	13	60.0	.024	0	-	1.58	93.4	86.2	89.8	130	88	101	115	137	162	216	273	340	376	422	1.0	1.7									
95	6	59.5	.027	-	-	1.93	93.9	86.7	90.3	133	88	103	115	139	162	213	267	343	376	418	.9	1.1									
96	9	61.5	-	-	-	-	94.0	86.2	90.1	129	93	106	117	134	154	208	270	347	383	418	1.4	1.8									
97	5	58.5	.025	2	.002	1.39	93.7	85.8	89.8	132	85	102	115	141	166	216	274	348	384	421	1.2	1.8									
98	1	61.0	.010	0	.000	3.17	93.1	-	-	140	85	100	120	151	178	221	259	306	325	360	1.0	2.0									
99	12	59.9	.025	-	-	1.18	93.8	86.1	90.0	135	87	105	120	143	165	214	271	344	381	425	1.0	1.6									
100	11	60.0	.034	-	-	2.40	94.2	86.4	90.3	133	86	101	116	140	162	215	281	362	396	431	1.0	1.8									
101	2	60.2	-	-	-	1.02	93.9	86.1	90.0	133	87	103	115	136	158	213	270	350	384	430	.9	1.1									
102	12	60.2	.038	-	-	1.96	93.7	86.5	90.1	131	88	102	116	136	158	209	269	346	381	426	1.0	1.7									
103	4	60.4	.042	-	-	1.75	93.7	85.7	89.7	132	86	101	114	133	153	205	272	355	393	434	1.1	1.2									
104	4	60.4	.043	-	-	1.56	94.3	86.0	90.2	138	91	106	118	139	159	207	267	351	394	421	1.2	1.4									
AVERAGE		60.0	.029	1	.002	1.70	93.8	86.1	90.0	133	87	103	116	139	162	213	271	344	380	421	1.1	1.6									
SAMPLES																															

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TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1974  
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 5 MICHIGAN

## REGULAR-PRICE GASOLINE

ITEM	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER			RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86										RES %	LOSS %
							RES, ASTM D2699	MOT, ASTM D2700	R+M ---			TEMPERATURE, F (CORRECTED TO 760 MM HG)					PERCENT EVAPORATED						
												IBP	5	10	20	30	50	70	90	95	EP		
119	1	61.3	0.056	1	0.001	1.47	94.0	86.5	90.3	11.0	126	82	95	111	132	155	207	260	342	366	428	1.0	2.0
120	1	58.6	.066	1	.003	1.38	93.4	85.5	89.5	10.5	131	84	98	115	139	165	218	272	350	386	432	1.0	2.0
121	3	61.1	.045	2	.001	.43	93.8	85.0	89.4	10.5	132	87	100	118	143	167	221	269	348	381	425	.9	1.5
122	18	60.6	.018	1	.000	2.08	93.7	86.7	90.2	9.4	136	90	106	120	142	165	210	256	323	354	408	1.0	1.5
123	13	59.1	.016	2	.000	1.03	94.7	87.2	91.0	10.3	133	88	104	120	143	168	218	268	335	367	413	1.0	1.6
124	6	60.4	.012	2	.004	.96	94.1	86.5	90.3	10.5	130	86	104	116	138	162	211	265	334	364	411	1.0	1.3
125	13	60.8	.108	1	.001	1.34	93.0	85.6	89.3	10.6	131	87	99	116	143	172	218	266	348	388	432	1.0	2.2
126	13	58.2	.028	1	.000	1.37	94.8	87.0	90.9	10.0	135	91	107	121	143	166	218	270	340	374	422	1.0	1.4
127	8	59.4	.031	2	.001	1.26	94.4	85.9	90.2	10.4	133	87	104	118	142	169	223	277	354	389	428	1.1	1.4
128	68	61.0	.054	1	.000	2.47	93.6	86.3	90.0	10.3	132	88	105	117	148	171	206	260	339	371	414	1.0	.6
129	10	61.4	.020	1	.000	.82	93.2	85.7	89.5	9.8	135	88	106	121	145	170	214	261	334	367	413	1.0	1.3
130	5	59.3	.030	1	.002	1.28	92.7	85.6	89.2	9.9	137	89	109	125	150	176	225	276	348	385	429	1.1	1.3
131	3	-	-	-	-	-	93.5	87.0	90.3	10.6	130	90	100	114	137	162	213	265	342	380	418	1.0	2.1
132	5	60.1	.038	2	.000	1.55	94.2	86.3	90.3	10.1	135	87	107	123	148	174	220	268	343	377	422	1.0	1.3
133	13	60.1	.037	1	.000	2.15	94.7	86.1	90.4	10.0	133	88	104	118	141	165	214	265	338	370	417	1.1	1.6
AVERAGE		60.1	.040	1	.001	1.40	93.9	86.2	90.1	10.3	133	87	103	118	142	167	216	267	341	375	421	1.0	1.5
SAMPLES		180																					

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TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1974  
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 5 MICHIGAN--CONTINUED

PREMIUM-PRICE GASOLINE

ITEM	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER		RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86														RES % LOSS	RES % LOSS			
							RES, ASTM D2699	MOT., ASTM D2700			R+M ---	TEMPERATURE, F (CORRECTED TO 760 MM HG)																	
												PERCENT EVAPORATED																	
												5	10	20	30	50	70	90	95	EP									
134	10	60.9	0.054	1	0.003	2.87	99.4	91.6	95.5	9.8	135	88	103	118	144	170	218	254	315	342	384	0.9	1.9						
135	3	60.5	.027	1	.003	2.32	98.5	91.1	94.8	10.1	134	85	101	117	143	173	221	263	330	358	412	1.3	1.7						
136	1	"	"	"	"	"	97.5	90.7	94.1	11.6	125	86	96	111	138	167	209	241	318	360	414	1.0	1.8						
137	6	61.5	.019	0	.001	1.52	98.8	91.8	95.3	9.7	137	89	105	122	152	181	217	247	328	368	415	1.1	2.0						
138	12	64.5	.050	1	.000	2.57	99.1	93.6	96.4	10.3	138	89	109	128	164	184	216	269	340	370	413	1.0	.5						
139	5	65.9	.029	1	.001	1.55	99.2	91.8	95.5	10.1	134	87	104	119	146	175	217	243	331	378	420	1.1	1.8						
140	10	60.5	.014	1	.001	1.57	99.5	92.1	95.8	9.3	139	92	106	122	150	178	219	251	317	356	405	1.1	1.8						
141	10	67.5	.107	1	.002	1.40	98.0	91.4	94.7	10.6	131	88	101	119	145	173	209	236	328	373	418	1.1	2.5						
142	3	61.4	.020	0	.003	1.82	99.0	91.5	95.3	10.6	131	87	101	116	143	171	218	261	329	352	403	.9	2.1						
143	7	59.7	.011	1	.001	1.65	98.6	91.2	94.9	10.4	133	91	103	120	146	173	220	258	317	348	396	1.0	2.3						
144	1	67.4	.065	2	.003	1.17	98.0	90.3	94.2	12.6	120	84	90	106	132	161	207	235	313	348	422	1.0	2.0						
145	1	60.5	.030	3	.002	1.61	99.1	90.5	94.8	11.0	130	86	99	116	143	170	223	270	333	357	430	1.0	2.0						
146	3	62.7	.034	1	.004	1.90	98.6	91.1	94.9	11.0	131	86	103	120	147	174	218	256	337	373	421	1.1	2.3						
147	14	60.5	.012	1	.001	2.38	99.2	92.5	95.9	9.6	136	89	102	121	148	174	212	241	291	320	371	.8	2.3						
AVERAGE		62.6	.036	1	.002	1.87	98.8	91.5	95.2	10.5	132	88	102	118	146	173	216	252	323	357	409	1.0	1.9						
SAMPLES	86																												



TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1974  
 AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 6 NORTH ILLINOIS  
 NORTHERN IND., NORTHERN ILL., EASTERN IOWA, AND WIS.

REGULAR-PRICE GASOLINE

ITEM	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER			RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86													RES LOSS % X
							RES, ASTM D2699	MOT, ASTM D2700	R+M ---			TEMPERATURE, F (CORRECTED TO 760 MM HG)													
												PERCENT EVAPORATED													
												IBP													
													5	10	20	30	50	70	90	95	EP				
148	6	59.8	0.060	1	0.003	2.59	94.7	86.1	90.4	9.4	136	89	104	118	140	163	212	267	350	384	429	1.0	1.5		
149	6	59.6	.021	2	.001	2.43	94.2	86.6	90.4	10.0	135	88	105	120	146	172	220	269	345	379	422	.9	1.5		
150	2	60.3	-	-	-	1.55	93.6	85.4	89.5	10.0	134	90	109	120	144	168	218	274	355	394	432	1.1	.9		
151	6	61.1	.014	0	.002	2.41	93.6	86.6	90.1	9.6	133	91	106	120	141	162	202	247	315	345	401	.8	1.5		
152	6	59.3	.084	0	.001	1.58	93.0	85.7	89.4	10.0	133	89	102	116	139	165	214	267	351	389	427	1.0	1.9		
153	6	58.2	.028	0	.004	1.69	94.3	86.7	90.5	9.0	139	92	105	119	141	169	227	281	349	386	424	1.1	1.6		
154	6	63.1	-	-	-	1.78	94.2	86.0	90.1	9.2	136	92	108	120	139	160	212	262	342	380	419	1.3	1.2		
155	2	60.7	-	-	-	1.56	93.7	85.6	89.7	10.2	128	84	96	107	130	151	201	250	340	384	423	.8	.7		
156	2	61.5	-	-	-	2.10	96.5	88.1	92.3	11.7	123	83	99	109	132	157	204	252	329	364	418	.6	1.4		
157	2	60.2	-	-	-	1.44	93.5	85.3	89.4	11.2	126	86	103	115	135	157	201	254	339	384	422	.6	.4		
158	2	58.7	-	-	-	1.80	92.9	86.4	89.7	9.8	137	87	106	122	148	173	223	272	331	359	414	.7	.8		
AVERAGE	46	60.2	.041	1	.002	1.90	94.0	86.2	90.1	10.0	133	88	104	117	140	163	212	263	341	377	421	.9	1.2		

SAMPLES

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1974  
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED  
DIST. 6 NORTH ILLINOIS--CONTINUED  
NORTHERN IND., NORTHERN ILL., EASTERN IOWA, AND WIS.

PREMIUM-PRICE GASOLINE

ITEM	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER				RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86										RES LOSS	
							RES, ASTM D2699	MOT, ASTM D2700	R+M ---	TEMPERATURE, F (CORRECTED TO 760 MM HG)														
										IBP			PERCENT EVAPORATED										EP	
													5	10	20	30	50	70	90	95				
													159	6	60.3	0.008	3	0.002	2.86	99.2	91.9	95.6		9.4
160	2	61.9	-	-	-	2.11	98.9	91.5	95.2	11.8	126	84	100	114	142	173	216	255	330	367	416	1.0	1.5	
161	1	60.4	-	-	-	2.61	99.1	92.1	95.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
162	6	61.2	.025	0	.002	2.87	98.7	91.4	95.1	10.2	136	88	102	119	151	183	229	268	342	379	420	.9	2.1	
163	2	62.2	-	-	-	2.30	98.7	91.6	95.2	11.4	127	84	100	113	141	171	216	259	337	380	422	1.0	1.5	
164	2	63.5	-	-	-	1.98	98.7	91.5	95.1	11.1	129	85	101	116	144	174	217	257	336	382	412	1.0	1.5	
165	2	66.9	-	-	-	1.49	99.0	91.2	95.1	10.4	133	95	115	126	146	168	212	249	340	379	413	1.3	1.4	
166	6	59.2	.005	2	.004	1.83	99.5	92.0	95.8	9.2	139	90	108	123	150	177	221	257	322	353	410	1.0	1.6	
167	6	66.8	.082	0	.001	1.56	98.2	91.2	94.7	10.5	131	87	100	117	147	176	209	235	325	376	428	.9	2.3	
168	3	62.0	.026	0	.001	1.93	98.3	91.3	94.8	11.0	130	85	103	117	144	173	219	259	334	372	420	.9	1.1	
169	6	60.7	.005	2	.002	2.82	99.4	92.5	96.0	9.6	137	90	106	122	151	174	213	242	297	331	385	.9	1.9	
AVERAGE		62.3	.025	1	.002	2.21	98.9	91.7	95.3	10.5	133	88	104	119	146	174	217	254	328	367	413	1.0	1.7	
SAMPLES																								

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1974  
 AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED  
 DIST. 7 CENTRAL MISSISSIPPI  
 WESTERN KY., SOUTHERN IND., SOUTHERN ILL., AND EASTERN MO.

## REGULAR-PRICE GASOLINE

ITEM	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER		RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86												RES %	LOSS %	
							RES, ASTM D2699	MOT, ASTM D2700			R+M ---	TEMPERATURE, F (CORRECTED TO 760 MM HG)													
												PERCENT EVAPORATED													
												IBP	5	10	20	30	50	70	90	95	FP				
170	2	59.9	-	-	-	2.25	93.6	85.6	89.6	10.5	132	89	106	119	142	166	218	272	350	374	430	1.0	1.5		
171	7	61.2	0.042	-	-	2.62	93.7	86.3	90.0	9.2	137	90	110	123	143	164	211	266	342	374	414	1.0	.8		
172	6	60.4	.055	-	-	1.82	93.8	85.9	89.9	9.6	138	91	112	126	150	174	224	275	345	384	423	1.2	1.0		
173	2	61.5	.026	-	-	2.51	93.0	86.3	89.7	9.6	132	93	110	121	139	157	197	252	342	375	410	1.1	1.4		
174	2	58.7	.016	-	-	1.57	93.2	84.9	89.1	10.0	140	91	114	131	159	184	232	281	355	388	442	1.3	1.7		
175	2	60.7	-	-	-	2.58	94.6	86.4	90.5	10.3	129	86	97	111	137	159	205	247	323	354	406	1.3	1.2		
176	6	59.8	.034	3	0.002	2.94	94.7	86.5	90.6	8.8	138	88	110	122	142	162	207	259	340	379	420	1.1	.8		
177	2	58.8	.058	-	-	2.41	93.1	84.3	88.7	10.8	129	86	101	115	139	163	213	262	332	357	421	1.2	1.3		
178	5	60.7	.072	-	-	2.05	93.4	86.0	89.7	9.8	135	89	105	119	144	167	217	271	345	377	420	1.0	1.5		
179	2	59.0	-	-	-	1.41	93.1	85.3	89.2	10.4	131	83	102	116	140	165	216	271	350	388	419	1.2	.8		
180	4	59.0	-	-	-	1.32	93.2	85.0	89.1	10.3	133	87	106	119	141	166	217	271	350	377	420	1.1	.7		
181	8	58.8	.016	0	.002	2.32	94.1	86.8	90.5	8.3	144	92	110	124	147	172	227	282	353	384	426	1.1	1.3		
182	2	57.1	-	-	-	.87	93.0	84.4	88.7	8.9	143	92	112	127	154	180	232	288	356	386	423	.7	1.3		
183	5	62.1	-	-	-	2.05	93.9	85.5	89.7	9.1	136	90	106	116	134	154	211	259	339	380	413	1.2	1.5		
184	6	58.5	.030	4	.002	2.16	93.9	85.9	89.9	10.2	135	89	109	124	148	173	221	274	348	390	424	1.2	1.7		
185	2	59.2	-	-	-	.98	93.2	85.7	89.5	8.7	142	91	112	126	151	174	218	261	340	372	414	1.0	1.0		
186	2	59.3	.039	-	-	1.85	93.8	85.2	89.5	10.2	140	88	116	133	162	188	236	284	354	396	445	1.1	.9		
187	4	60.4	.041	-	-	2.18	93.6	86.2	89.9	10.3	132	89	105	116	136	161	218	282	359	389	425	1.1	1.4		
188	2	60.3	-	-	-	1.97	92.8	85.5	89.2	9.3	136	92	108	120	139	158	212	268	344	382	412	1.3	.7		
AVERAGE		59.8	.039	2	.002	1.99	93.6	85.7	89.7	9.7	136	89	108	121	145	168	217	270	346	379	421	1.1	1.2		
SAMPLES																							71		



TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1974  
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 7 CENTRAL MISSISSIPPI--CONTINUED

WESTERN KY., SOUTHERN IND., SOUTHERN ILL., AND EASTERN MO.

PREMIUM-PRICE GASOLINE

ITEM	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER				RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86											RES %	LOSS %
							RES, ASTM D2699	MOT., ASTM D2700	R+M --	TEMPERATURE, F (CORRECTED TO 760 MM HG)															
										PERCENT EVAPORATED															
										IBP			5	10	20	30	50	70	90	95	EP				
189	6	61.3	0.005	2	0.002	2.73	99.3	91.8	95.6	9.4	138	89	109	124	149	175	219	254	317	350	386	1.1	1.4		
190	2	61.1	.044	-	-	2.40	99.2	91.5	95.4	9.5	141	90	110	127	156	184	231	278	344	388	428	1.3	1.7		
191	6	62.5	.044	-	-	2.19	98.7	91.5	95.1	9.9	135	87	104	119	145	169	215	255	326	362	411	.8	1.6		
192	2	67.4	-	-	-	1.87	98.9	93.3	96.1	10.4	134	90	108	124	156	183	208	229	309	352	400	1.2	1.8		
193	2	67.3	-	-	-	1.99	99.1	93.3	96.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
194	2	66.2	-	-	-	2.19	99.2	92.1	95.7	10.3	133	85	105	121	148	175	214	243	328	382	428	1.2	1.8		
195	2	63.8	-	-	-	2.11	99.2	91.8	95.5	8.8	136	89	102	113	136	157	203	245	303	337	415	.7	1.3		
196	4	63.6	.051	-	-	2.38	99.2	91.9	95.6	10.2	132	87	104	115	137	162	212	248	324	361	418	.7	1.4		
197	2	64.2	.037	-	-	2.10	98.9	91.5	95.2	10.4	131	89	106	119	143	169	209	245	308	342	408	.6	1.4		
198	2	64.8	-	-	-	2.41	99.5	94.0	96.8	9.9	135	88	107	123	149	174	212	244	315	357	413	.9	1.1		
199	6	62.9	.014	1	.002	1.89	98.9	91.7	95.3	10.0	134	91	106	120	141	164	213	257	333	368	400	1.1	1.9		
200	5	65.3	-	-	-	1.89	98.3	90.2	94.3	10.4	131	91	107	118	138	160	209	243	322	365	412	.9	1.7		
201	2	66.8	-	-	-	1.49	98.1	91.4	94.8	11.1	130	87	105	121	151	180	212	239	342	387	432	1.0	1.5		
202	8	60.7	.016	0	.002	2.04	99.7	92.3	96.0	9.3	139	91	109	125	150	175	218	253	319	355	401	1.0	1.3		
203	1	67.9	-	-	-	1.50	98.7	93.0	95.9	9.7	137	87	109	125	154	180	212	236	308	342	387	1.0	1.5		
204	1	57.9	.050	-	-	1.61	99.5	91.1	95.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
205	2	60.6	.047	-	-	2.33	99.5	91.6	95.6	10.3	130	85	98	109	133	163	218	258	338	378	407	.9	1.6		
206	5	62.7	.065	-	-	2.55	98.9	91.6	95.3	10.1	135	87	107	121	148	176	220	256	332	374	419	1.0	1.3		
207	7	58.9	.058	-	-	2.85	99.6	92.0	95.8	9.6	142	90	112	130	164	190	229	259	308	333	384	.9	1.4		
208	1	62.0	-	-	-	1.60	97.5	91.7	94.6	10.2	133	86	109	121	145	169	213	255	328	364	411	.6	.4		
209	1	62.6	-	-	-	2.17	98.9	92.2	95.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
AVERAGE		63.4	.039	1	.002	2.11	99.0	92.0	95.5	10.0	135	88	107	121	147	173	215	250	322	361	409	.9	1.5		
SAMPLES		69																							

69  
SAMPLES







TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1974  
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 9 NORTH PLAINS  
MINN., N. DAK., AND S. DAK.

REGULAR-PRICE GASOLINE

ITEM	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER		RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86																RES LOSS % X	
							RES, ASTM D2699	MOT., ASTM D2700			TEMPERATURE, F (CORRECTED TO 760 MM HG)																	
											PERCENT EVAPORATED																	
											5	10	20	30	50	70	90	95	FP									
243	4	59.7	0.064	-	-	2.58	93.8	84.4	89.1	10.0	133	93	108	121	141	162	211	267	347	388	405	1.0	1.1					
244	2	63.1	.071	-	-	2.67	92.4	85.4	88.9	9.8	127	89	102	112	128	144	182	233	323	356	408	.9	1.1					
245	2	56.6	.030	-	-	.91	92.6	84.8	88.7	9.3	133	89	108	118	136	155	197	248	325	365	420	1.0	.5					
246	2	61.8	.039	-	-	1.18	92.3	84.8	88.6	9.2	134	90	108	120	137	155	197	250	336	368	430	.9	.6					
247	2	61.4	.056	-	-	1.85	92.2	85.1	88.7	9.0	137	94	110	121	141	162	209	263	344	386	424	1.4	1.1					
248	2	61.9	.080	-	-	2.48	92.3	85.3	88.8	9.4	130	88	106	114	132	146	186	235	319	352	400	.9	1.1					
249	2	61.6	.038	-	-	1.97	93.1	85.8	89.5	9.2	136	94	114	124	144	162	206	254	325	370	410	1.2	.8					
250	5	61.3	.061	0	-	2.28	92.1	85.0	88.6	9.7	134	94	110	122	142	162	207	258	334	375	405	1.1	1.0					
251	1	61.0	-	-	-	1.50	92.7	85.2	89.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
252	4	60.9	.083	-	-	2.20	92.8	84.5	88.7	9.7	133	92	101	118	140	161	204	256	339	382	409	1.0	1.6					
253	1	61.7	-	-	-	1.12	92.0	84.8	88.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
254	2	63.2	.066	-	-	2.77	92.3	85.3	88.8	10.2	128	93	107	118	134	149	189	240	326	371	420	1.0	.5					
AVERAGE	29	61.2	.059	0	-	1.96	92.6	85.0	88.8	9.6	133	92	107	119	138	156	199	250	332	371	413	1.0	.9					

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1974  
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 9 NORTH PLAINS--CONTINUED  
MINN., N. DAK., AND S. DAK.

PREMIUM-PRICE GASOLINE

ITEM	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT. %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER				RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86											RES % X	LOSS % X			
							RES, ASTM D2699	MOT., ASTM D2700					TEMPERATURE, F (CORRECTED TO 760 MM HG)															
													PERCENT EVAPORATED															
													IBP	5	10	20	30	50	70	90	95	EP						
255	3	68.6	0.025	-	-	1.68	99.1	90.6	94.9	11.6	124	90	100	113	134	158	201	238	314	332	383	1.1	1.8					
256	1	65.8	.067	-	-	2.85	99.2	92.2	95.7	9.2	140	92	110	127	156	182	213	241	323	361	422	.8	2.2					
257	4	69.5	.056	-	-	2.70	99.3	91.4	95.4	10.8	130	88	100	117	145	169	208	245	326	343	389	1.2	1.9					
258	2	61.6	.023	-	-	1.72	96.5	90.2	93.4	9.0	140	92	107	123	153	179	214	248	316	350	414	.7	2.8					
259	2	64.6	.042	-	-	2.56	98.6	92.2	95.4	9.2	140	90	111	128	155	181	218	246	314	353	420	.7	1.3					
260	4	66.0	.055	1	-	2.55	98.7	91.5	95.1	9.7	138	95	114	129	156	180	213	237	324	365	399	1.2	1.6					
261	2	64.3	.034	-	-	2.60	99.0	92.4	95.7	9.1	142	96	117	131	157	185	220	250	320	368	410	1.3	1.2					
262	2	65.5	.039	-	-	2.60	99.0	92.5	95.8	9.1	142	87	111	130	161	187	215	243	316	348	414	.8	.7					
263	1	63.8	.044	-	-	2.64	98.7	92.4	95.6	8.8	142	94	114	128	154	180	215	246	315	363	410	1.3	1.7					
264	2	60.9	.023	-	-	1.89	99.0	93.1	96.1	9.3	147	90	113	137	176	204	231	254	309	332	398	.8	2.2					
265	2	61.6	.036	-	-	1.98	98.8	92.8	95.8	9.1	147	90	113	136	174	200	227	253	313	349	410	.8	2.7					
266	1	63.4	-	-	-	2.64	98.7	92.1	95.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
267	2	65.9	.052	-	-	2.89	99.0	91.9	95.5	9.7	136	90	109	126	152	176	209	235	312	344	408	1.0	2.0					
AVERAGE		64.7	.041	1	-	2.41	98.7	91.9	95.3	9.6	139	91	110	127	156	182	215	245	317	351	406	1.0	1.6					
SAMPLES																												

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1974  
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 10 CENTRAL PLAINS  
NEBR., CENTRAL AND WESTERN IOWA, NW MO., AND NORTHERN KANS.

REGULAR-PRICE GASOLINE

ITEM	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER		RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86											RES %	LOSS %		
							RES, ASTM D2699	MOT., ASTM D2700			TEMPERATURE, F (CORRECTED TO 760 MM HG)		PERCENT EVAPORATED												
											R+W ---	IBP	5	10	20	30	50	70	90	95	FP				
268	14	60.8	0.084	1	0.900	3.17	93.2	84.9	89.1	136	95	110	123	146	169	212	258	336	369	395	0.9	1.8			
269	4	62.4	.036	-	-	2.17	92.7	86.1	89.4	130	89	105	117	133	149	192	245	326	355	415	1.0	1.0			
270	12	61.6	.043	1	.000	2.01	92.3	85.5	88.9	136	94	110	124	145	166	209	261	339	378	419	.9	1.6			
271	2	61.1	.041	-	-	2.18	92.3	85.6	89.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
272	10	60.4	.020	-	-	1.63	91.5	84.9	88.2	136	92	106	121	144	169	223	278	357	398	422	.9	1.5			
273	3	61.3	.054	-	-	2.12	92.8	85.5	89.2	149	98	121	133	154	174	217	267	339	380	430	1.1	.9			
274	2	61.3	.017	-	-	1.99	92.8	86.0	89.4	134	92	112	122	142	161	204	255	331	369	412	1.2	.8			
275	15	63.2	.028	1	.002	1.69	92.2	85.8	89.0	137	95	111	123	139	158	203	252	331	371	411	.9	1.4			
276	4	62.4	.032	1	.001	1.86	92.0	85.3	88.7	138	96	113	125	147	171	217	265	341	380	408	.9	1.4			
277	5	61.0	.026	1	.000	1.90	92.2	85.3	88.8	136	96	112	125	145	165	208	261	346	393	421	.9	1.5			
278	2	62.3	.01	-	-	2.03	92.2	85.6	88.9	132	89	105	118	139	158	206	261	339	371	420	1.3	1.7			
279	2	62.3	.01	-	-	2.14	92.1	86.1	89.1	122	85	94	103	122	143	189	242	312	353	382	1.1	1.4			
AVERAGE	75	61.7	.0	1	.001	2.07	92.4	85.6	89.0	135	93	109	121	141	162	207	259	336	374	412	1.0	1.4			





**TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1974**  
**AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED**

DIST. 11 SOUTH PLAINS  
SOUTHERN KANSAS

MO., WESTERN ARK., OKLA., AND NORTHERN TEX.

## REGULAR-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER		RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86										RES %	LOSS %		
							RES, ASTM D2699	MOT., ASTM D2700			R+M --=	TEMPERATURE, F (CORRECTED TO 760 MM HG)												
												IBP	PERCENT EVAPORATED										EP	
													5	10	20	30	50	70	90	95				
292	4	62.9	0.031	-	-	2.36	92.4	85.7	89.1	9.5	134	90	105	121	142	158	198	252	341	389	426	1.3	1.0	
293	3	60.0	0.034	0	0.000	1.46	91.0	85.1	88.1	10.3	131	85	103	114	137	162	214	273	344	382	428	1.1	2.2	
294	6	62.9	0.033	1	0.000	1.90	92.4	85.9	89.2	9.8	131	89	105	117	136	156	200	248	324	357	404	1.2	1.1	
295	6	62.6	0.046	0	0.001	2.06	92.2	85.3	88.8	9.9	136	87	110	125	150	174	215	258	332	376	406	0.9	1.8	
296	4	60.0	-	-	-	1.67	92.8	85.6	89.2	9.7	133	93	102	119	140	163	207	258	332	365	406	1.0	2.2	
297	1	58.0	-	-	-	1.48	93.0	85.6	89.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
298	2	60.2	0.010	-	-	2.11	93.2	86.7	90.0	8.9	146	94	120	136	164	188	230	274	335	380	413	1.1	1.4	
299	5	61.2	0.024	1	0.000	3.05	93.0	86.5	90.8	9.3	132	97	109	118	134	148	192	256	345	381	423	0.8	1.3	
300	2	59.9	0.006	-	-	1.97	92.9	86.0	89.5	9.2	138	94	110	123	145	166	216	267	322	349	398	0.8	1.7	
301	6	59.1	0.035	0	0.001	2.38	92.6	85.8	89.6	9.8	133	89	108	119	138	158	207	264	344	386	419	1.1	1.7	
302	2	59.4	0.046	-	-	2.29	94.3	86.9	90.2	9.1	137	84	103	116	138	162	217	277	346	387	430	1.1	0.9	
303	4	60.6	0.038	-	-	2.09	93.2	85.7	89.5	8.8	136	90	107	116	134	152	200	254	329	362	397	0.9	1.2	
304	13	61.0	0.052	0	0.003	2.17	93.3	86.2	89.8	9.5	137	90	107	123	146	169	216	269	339	375	412	1.2	1.6	
305	2	63.0	0.037	-	-	2.46	92.8	87.4	90.1	9.2	134	92	107	119	136	154	201	257	340	382	422	1.0	1.0	
306	2	61.2	0.035	-	-	2.97	93.9	87.4	90.7	9.6	133	90	106	117	137	157	205	275	351	381	404	1.0	1.5	
307	4	63.3	0.044	-	-	2.02	93.3	86.3	89.8	9.7	134	90	109	120	140	161	210	281	338	370	411	1.1	1.2	
308	7	59.3	0.039	0	0.000	1.75	92.1	85.3	88.7	9.4	138	91	111	125	147	171	220	276	349	386	424	1.1	1.2	
309	5	62.5	0.013	-	-	2.06	93.9	87.1	90.5	9.5	137	93	106	122	145	168	217	269	342	374	412	1.0	2.1	
310	10	60.0	0.047	0	0.000	2.51	93.5	85.9	89.7	9.4	136	92	106	121	144	166	210	257	325	359	400	0.9	1.7	
311	2	62.4	0.050	-	-	2.21	92.4	86.0	89.2	9.8	133	90	107	120	142	162	206	251	327	372	415	1.0	1.0	
AVERAGE		61.1	0.034	0	0.001	2.15	92.9	86.1	89.5	9.5	135	91	107	121	142	163	210	263	337	374	413	1.0	1.5	
SAMPLES																								

TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1974  
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 11 SOUTH PLAINS--CONTINUED  
SOUTHERN KANS., SW MO., WESTERN ARK., OKLA., AND NORTHERN TEX.

PREMIUM-PRICE GASOLINE																								
ITEM	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER		RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86										RES LOSS % X			
							RES, ASTM D2699	MOT., ASTM D2700			R+M ---	TEMPERATURE, F (CORRECTED TO 760 MM HG)												
												PERCENT EVAPORATED												
												IBP	5	10	20	30	50	70	90	95			EP	
312	1	65.3	-	-	-	1.96	97.9	91.2	94.6	9.2	131	89	95	106	127	150	200	233	323	368	408	0.9	1.6	
313	1	68.1	0.021	-	-	3.42	100.6	95.9	98.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
314	8	63.3	0.018	2	0.000	2.79	99.0	92.4	95.7	9.5	139	93	109	127	154	181	219	253	315	351	389	0.9	2.0	
315	7	64.6	0.007	-	-	2.82	98.6	92.4	95.5	9.0	142	101	109	126	154	182	226	265	316	360	426	1.0	3.1	
316	2	61.8	0.025	0	0.000	2.25	97.9	92.3	95.1	9.6	139	88	109	125	155	185	225	264	327	376	407	1.1	1.6	
317	4	63.7	0.029	-	-	2.40	99.0	92.7	95.9	9.6	140	90	110	127	157	183	223	260	344	382	421	1.2	1.1	
318	2	58.8	0.012	-	-	2.98	99.5	92.4	96.0	10.3	130	89	105	115	131	153	215	268	341	372	402	1.4	0.6	
319	2	63.7	0.013	-	-	2.68	97.7	92.2	95.0	9.4	137	91	111	123	146	171	214	251	340	379	418	1.4	1.1	
320	13	65.0	0.030	0	0.001	2.31	99.1	92.2	95.7	9.7	136	89	107	121	147	172	215	254	332	374	412	1.1	2.0	
321	1	61.1	-	-	-	2.21	98.5	91.5	95.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
322	3	64.8	0.012	0	0.000	1.78	97.3	92.8	95.1	11.1	131	88	102	120	151	184	219	254	313	356	399	1.2	1.9	
323	4	65.8	0.022	0	0.000	2.34	99.1	92.7	95.9	9.8	136	92	115	128	152	175	211	241	327	361	416	1.0	1.5	
324	4	60.4	0.035	-	-	2.98	98.9	92.3	95.6	9.2	130	87	99	109	123	139	194	251	343	369	415	1.0	1.0	
325	2	66.7	0.034	-	-	2.86	99.5	92.9	96.2	10.1	133	88	98	119	147	176	212	238	328	376	416	1.0	1.8	
326	6	61.0	0.017	-	-	2.38	99.0	91.9	95.5	9.5	138	91	105	122	151	181	224	260	337	376	420	1.0	2.2	
327	5	67.7	0.026	1	0.000	2.38	99.2	92.8	96.0	9.6	137	90	110	124	152	179	214	245	325	378	409	0.9	1.9	
328	1	62.6	0.034	-	-	2.36	98.0	92.0	95.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
329	6	65.6	0.035	0	0.000	2.13	98.0	91.4	94.7	10.0	135	89	109	122	149	175	213	254	345	388	423	1.2	1.8	
330	2	60.4	0.017	-	-	3.15	99.9	92.8	96.4	9.3	136	92	110	120	137	157	219	255	330	360	405	1.2	1.3	
331	4	62.9	0.014	-	-	2.41	99.1	91.7	95.4	9.6	136	89	108	122	146	172	216	255	324	360	406	1.1	1.5	
AVERAGE		63.7	0.022	0	0.000	2.53	98.8	92.4	95.6	9.7	136	90	107	121	146	171	215	253	330	370	411	1.1	1.6	
SAMPLES		78																						





TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1974  
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 12 SOUTH TEXAS--CONTINUED

PREMIUM-PRICE GASOLINE

ITEM	SAMPLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER		RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86												RES %	LOSS %	
							RES, ASTM D2699	MOT, ASTM D2700			R+M ---	TEMPERATURE, F (CORRECTED TO 760 MM HG)		PERCENT EVAPORATED											
												IBP	5	10	20	30	50	70	90	95	EP				
345	5	61.9	0.017	1	0.001	2.71	98.4	91.8	95.1	132	92	107	119	134	150	200	258	343	375	421	1.0	1.2			
346	2	56.5	-	-	-	2.55	98.9	91.0	95.0	144	90	108	126	159	189	235	283	351	389	424	.8	1.7			
347	7	58.4	.013	-	-	2.76	99.1	91.2	95.2	138	87	106	123	149	176	223	271	337	369	411	1.0	1.5			
348	2	57.0	-	-	-	2.79	99.0	91.4	95.2	145	94	113	127	155	184	230	281	350	385	426	1.0	1.0			
349	1	56.1	-	-	-	2.75	98.8	90.8	94.8	-	-	-	-	-	-	-	-	-	-	-	-	-			
350	1	56.0	-	-	-	2.69	98.5	90.2	94.4	-	-	-	-	-	-	-	-	-	-	-	-	-			
351	8	59.6	.024	1	.001	2.95	100.0	92.5	96.3	138	91	107	120	141	165	218	255	323	355	404	1.0	1.2			
352	8	61.7	.023	1	.001	2.60	99.1	91.4	95.3	136	90	108	121	141	163	208	244	309	346	397	1.0	1.3			
353	5	61.3	-	-	-	2.23	97.9	90.9	94.4	137	90	107	119	137	159	215	258	323	356	402	1.0	1.0			
354	3	60.6	.019	-	-	2.91	98.8	92.0	95.4	137	89	108	120	144	169	223	273	325	363	402	1.2	.8			
355	3	59.3	.004	1	.001	2.84	99.4	92.3	95.9	131	88	101	113	131	151	211	266	336	367	396	.8	1.5			
356	1	63.9	-	-	-	3.16	99.4	91.5	95.5	-	-	-	-	-	-	-	-	-	-	-	-	-			
357	8	59.2	.021	1	-	2.69	99.0	91.8	95.4	137	89	106	117	139	164	225	268	325	358	402	1.0	1.0			
358	8	57.6	.014	1	.001	3.19	99.6	91.7	95.7	146	93	112	131	159	187	233	274	330	355	403	1.0	1.4			
AVERAGE		59.2	.017	1	.001	2.77	99.0	91.5	95.3	138	90	108	121	144	169	220	266	332	365	408	1.0	1.2			
SAMPLES																									
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TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1974  
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 16 NORTH CALIFORNIA--CONTINUED

PREMIUM-PRICE GASOLINE

ITEM	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER			RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86												
							RES, ASTM D2699	MOT, ASTM D2700	R+M --- 2			TEMPERATURE, F (CORRECTED TO 760 MM HG)											RES LOSS % X	
												PERCENT EVAPORATED												
												IBP	5	10	20	30	50	70	90	95	EP			
446	7	57.6	0.008	1	0.000	1.99	99.6	92.1	95.9	8.7	145	95	112	132	158	183	226	268	332	364	407	1.1	2.4	
447	2	53.4	-	-	-	1.99	98.9	90.6	94.8	9.0	147	88	113	131	165	194	245	288	337	371	414	1.2	2.8	
448	7	58.2	.011	2	.001	2.15	99.8	91.7	95.8	8.8	145	97	115	135	162	187	228	269	334	369	415	1.0	2.0	
449	7	60.2	.008	1	.000	2.96	98.9	91.6	95.3	8.4	140	98	111	125	142	158	199	247	324	362	414	1.1	2.1	
450	7	56.8	.008	1	.001	2.26	99.0	91.5	95.3	8.6	144	94	111	129	154	177	222	262	327	356	396	1.1	2.0	
451	7	58.6	.009	1	.003	1.83	99.5	91.2	95.4	8.6	141	97	111	126	147	169	211	254	317	354	402	1.1	2.0	
452	1	56.2	-	-	-	2.58	99.8	90.8	95.3	9.0	144	92	117	133	161	188	229	264	333	359	414	.9	1.1	
453	6	57.7	.008	3	.001	2.57	99.3	91.6	95.5	8.5	147	97	115	135	163	187	231	270	336	369	410	1.1	1.8	
454	3	54.2	.010	1	.000	1.75	99.4	91.4	95.4	8.8	150	98	119	137	171	200	248	281	337	376	413	1.0	2.1	
455	4	56.2	.008	0	.000	2.09	99.8	92.6	96.2	8.9	145	97	116	133	161	186	231	269	329	359	405	1.2	1.6	
456	7	60.4	.006	1	.000	3.73	97.2	91.2	94.2	8.7	138	98	111	124	142	159	199	248	316	350	406	1.0	2.1	
AVERAGE		57.2	.008	1	.001	2.35	99.2	91.5	95.4	8.7	144	96	114	131	157	181	224	265	329	363	409	1.1	2.0	
SAMPLES																								

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TABLE 3. - MOTOR GASOLINE SURVEY, SUMMER 1974  
AVERAGE DATA FOR DIFFERENT BRANDS--CONTINUED

DIST. 17 SOUTH CALIFORNIA--CONTINUED

PREMIUM-PRICE GASOLINE

ITEM	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER		RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86										RES LOSS % X					
							RES, ASTM D2699	MOT., ASTM D2700			R+M --=	TEMPERATURE, F (CORRECTED TO 760 MM HG)														
												IBP	PERCENT EVAPORATED										RES % X	LOSS % X		
													5	10	20	30	50	70	90	95					EP	
468	8	57.6	0.040	1	0.001	3.02	99.2	91.1	8.9	142	92	108	127	151	178	231	275	329	361	407	1.0	2.2				
469	2	51.1	.003	-	-	2.13	99.0	89.8	7.4	161	94	119	145	184	209	242	278	323	362	396	1.0	3.5				
470	4	57.7	.039	3	.000	2.73	99.2	91.0	8.8	143	96	110	126	152	179	228	268	327	358	407	1.2	1.9				
471	7	57.6	.026	0	.000	2.70	98.9	91.4	8.6	147	95	111	132	163	192	235	277	339	367	412	1.1	2.0				
472	6	62.1	.045	1	.001	2.53	98.9	91.7	9.6	135	93	106	120	143	167	209	249	326	370	410	1.2	1.9				
473	10	59.8	.040	1	.001	2.29	99.7	90.8	8.9	142	93	112	129	154	177	217	253	314	353	397	1.2	1.7				
474	9	58.8	.050	1	.001	1.96	99.4	90.4	8.7	142	92	110	126	150	176	220	262	332	368	417	1.1	1.5				
475	10	61.9	.031	2	.001	2.71	98.8	91.4	9.0	136	94	109	122	139	156	200	247	312	348	390	1.1	1.5				
476	10	62.0	.032	3	.001	2.81	99.1	91.7	8.7	140	95	110	125	146	167	210	254	321	354	395	1.0	1.6				
477	9	59.3	.028	1	.000	3.16	97.6	91.6	9.1	138	93	108	123	141	162	214	277	350	383	421	1.1	1.7				
AVERAGE	75	58.8	.033	1	.001	2.60	99.0	91.1	8.8	143	94	110	128	152	176	221	264	327	362	405	1.1	2.0				





TABLE 4. - MOTOR GASOLINE SURVEY, SUMMER 1974  
AVERAGE DATA FOR BRANDS IN EACH DISTRICT--CONTINUED

PREMIUM-PRICE GASOLINE

DISTRICT NO. AND NAME	NO. OF BRANDS	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER				RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86											RES LOSS %
								RES, ASTM D2699	MOT, ASTM D2700	R+M, ASTM D2700	TEMPERATURE, F (CORRECTED TO 760 MM HG)														
											PERCENT EVAPORATED														
											1BP			5	10	20	30	50	70	90	95	EP	RES	LOSS	
1 NORTHEAST	10	38	59.8	0.019	1	-	2.40	99.4	91.3	95.4	10.9	130	89	104	116	139	164	218	264	327	360	403	1.0	1.5	
2 MID-ATLANTIC COAST	18	159	59.6	.027	1	0.001	2.38	99.0	91.2	95.1	10.2	133	87	102	117	140	165	217	262	328	360	408	1.0	1.8	
3 SOUTHEAST	17	155	60.4	.026	1	-	2.40	99.1	91.6	95.4	9.5	136	88	105	118	141	166	219	266	331	362	407	1.0	1.5	
4 APALACHIAN	14	135	61.2	.018	1	.002	2.06	99.1	91.5	95.3	10.6	131	87	101	115	140	166	216	258	328	364	410	1.1	2.2	
5 MICHIGAN	14	86	62.6	.036	1	.002	1.87	98.8	91.5	95.2	10.5	132	88	102	118	146	173	216	252	323	357	409	1.0	1.9	
6 NORTH ILLINOIS	11	42	62.3	.025	1	.002	2.21	98.9	91.7	95.3	10.5	133	88	104	119	146	174	217	254	328	367	413	1.0	1.7	
7 CENTRAL MISSISSIPPI	21	69	63.4	.039	1	.002	2.11	99.0	92.0	95.5	10.0	135	88	107	121	147	173	215	250	322	361	409	1.0	1.5	
8 LOWER MISSISSIPPI	17	98	61.5	.026	3	.000	2.60	99.2	91.5	95.4	9.8	134	89	106	119	140	164	214	258	330	361	407	1.0	1.3	
9 NORTH PLAINS	13	28	64.7	.041	1	-	2.41	98.7	91.9	95.3	9.6	139	91	110	127	156	182	215	245	317	351	406	1.0	1.8	
10 CENTRAL PLAINS	12	77	65.1	.044	1	.001	2.28	98.9	92.0	95.5	9.3	138	93	111	124	148	172	213	248	327	368	411	1.0	1.4	
11 SOUTH PLAINS	20	78	63.7	.022	0	.000	2.53	98.8	92.4	95.6	9.7	136	90	107	121	146	171	215	253	330	370	411	1.1	1.6	
12 SOUTH TEXAS	14	62	59.2	.017	1	.001	2.77	99.0	91.5	95.3	9.2	138	90	108	121	144	169	220	266	332	365	408	1.0	1.2	
13 SOUTH MOUNTAIN STATES	13	191	62.0	.027	2	.001	2.24	97.4	90.3	93.9	8.6	143	95	113	128	151	174	219	260	335	373	410	1.0	1.4	
14 NORTH MOUNTAIN STATES	13	121	65.3	.041	1	.001	1.98	98.4	91.0	94.7	9.6	137	92	111	125	150	175	214	245	321	359	403	1.0	1.7	
15 PACIFIC NORTHWEST	8	54	61.4	.011	2	.002	2.32	99.4	91.3	95.4	9.9	135	91	106	121	145	171	217	261	322	354	396	1.1	2.2	
16 NORTH CALIFORNIA	11	58	57.2	.008	1	.001	2.35	99.2	91.5	95.4	8.7	144	96	114	131	157	181	224	265	329	363	409	1.1	2.0	
17 SOUTH CALIFORNIA	10	75	58.8	.033	1	.001	2.60	99.0	91.1	95.1	8.8	143	94	110	128	152	176	221	264	327	362	405	1.1	2.0	
AVERAGE			61.7	.027	1	.001	2.32	98.9	91.5	95.2	9.7	136	90	107	122	146	172	217	257	327	362	407	1.0	1.7	
SAMPLES		1536																							

TABLE 5. - MOTOR GASOLINE SURVEY, SUMMER 1974  
DATA FOR SOME ADDITIONAL GRADES

## THIRD-GRADE GASOLINE

DISTRICT AND ITEM NUMBERS	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER		RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86													RES % LOSS
							RES, ASTM D2699	MOT, ASTM D2700			TEMPERATURE, F (CORRECTED TO 760 MM HG)		PERCENT EVAPORATED											
											R+M ---	2	IBP					EP						
													5	10	20	30	50	70	90	95				
1 478	2	59.0	0.078	-	-	0.12	94.8	83.3	89.1	11.1	128	84	102	115	138	162	215	268	327	362	394	1.0	1.5	
1 479	1	58.4	.026	-	-	-	94.4	83.6	89.0	10.1	131	88	106	119	139	160	206	253	298	321	354	.5	1.5	
1 480	2	56.9	.016	-	-	.09	91.1	81.8	86.5	8.5	144	87	105	124	147	172	230	278	326	335	388	.8	1.5	
1 481	2	58.4	.023	-	-	.02	91.1	83.2	87.2	9.2	140	94	105	124	146	162	226	256	324	361	420	1.0	1.3	
1 482	1	53.0	-	-	-	.12	96.1	86.5	91.3	10.2	134	80	-	110	140	-	238	-	326	-	400	1.0	1.0	
1 483	3	57.0	.030	-	-	.01	92.5	82.9	87.7	8.6	146	93	114	125	155	193	238	280	330	368	408	.9	1.6	
1 484	2	56.7	-	-	-	.01	94.2	83.8	89.0	13.3	118	74	-	106	128	-	209	-	361	-	430	1.0	3.0	
1 485	1	64.6	-	-	-	.02	92.5	83.1	87.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1 486	1	58.5	-	-	-	.01	92.0	83.8	87.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1 487	1	57.1	.046	-	-	-	93.4	82.7	88.1	11.0	131	86	101	116	143	173	227	272	331	363	418	.8	1.7	
2 488	9	58.0	.037	1	0.001	.02	93.8	82.9	88.4	9.6	134	91	106	117	138	158	214	281	349	377	423	1.1	1.4	
2 489	7	56.9	.009	0	.001	.02	92.1	83.7	87.9	9.6	136	89	105	117	140	161	221	282	336	364	423	1.0	1.3	
2 490	6	60.9	.028	1	.002	.03	91.5	83.3	87.4	9.5	138	89	107	122	149	177	223	262	332	366	425	.9	1.5	
2 491	4	60.0	.032	-	-	.06	93.6	85.0	89.3	9.4	139	90	111	124	150	177	225	266	337	373	425	1.1	1.2	
2 492	5	59.0	.053	1	.001	.02	93.1	84.1	88.6	7.6	146	91	110	123	145	170	219	252	336	376	418	1.0	2.0	
2 493	10	58.9	.020	1	.001	.03	92.6	83.8	88.2	8.6	145	90	113	128	156	184	231	271	335	367	419	1.0	1.3	
2 494	1	55.2	.007	0	.001	.03	97.2	86.3	91.8	9.8	136	96	110	120	141	173	231	250	318	348	398	1.3	2.0	
2 495	8	59.1	.022	0	.001	.02	91.6	83.2	87.4	8.9	141	92	110	124	147	172	224	264	325	360	413	1.0	1.4	
2 496	2	57.6	.038	0	.001	.01	93.2	83.8	88.5	9.8	141	93	112	129	159	190	233	270	332	363	420	1.2	1.7	
2 497	4	58.7	.034	3	.001	.73	92.3	83.4	87.9	9.6	136	90	105	118	140	165	223	282	357	390	423	1.4	1.5	
2 498	4	62.7	.020	2	.001	.02	91.4	83.6	87.5	9.6	138	92	106	122	148	176	226	265	317	349	394	1.1	1.9	
2 499	4	62.9	.030	1	.003	.03	93.6	84.6	89.1	9.8	134	91	105	117	135	157	210	260	333	357	404	.8	1.9	
2 500	2	59.6	.028	1	.001	.02	92.0	83.5	87.8	9.9	133	90	98	113	138	166	216	265	338	371	411	.9	2.4	
2 501	1	58.8	.019	-	-	-	91.9	82.5	87.2	9.3	140	89	110	127	153	179	220	250	307	342	384	1.0	1.0	
2 502	2	59.5	.047	-	-	-	92.4	84.0	88.2	10.0	137	89	109	126	156	183	221	256	327	372	414	1.1	1.4	
3 503	2	58.2	.030	-	-	.02	91.7	83.2	87.5	9.8	137	89	108	121	147	173	222	268	338	370	417	.9	1.2	
3 504	9	58.2	-	-	-	.04	93.7	83.0	88.4	9.9	130	86	104	113	132	155	204	271	342	364	412	1.0	1.6	
3 505	2	60.4	-	-	-	-	92.4	84.3	88.4	9.5	134	88	101	113	139	163	215	266	335	360	415	1.1	1.9	
3 506	1	55.2	-	-	-	-	95.0	84.6	89.8	9.5	141	92	110	127	154	183	234	268	305	336	399	.8	1.2	
3 507	5	59.5	-	-	-	.01	91.5	83.2	87.4	9.7	135	87	103	116	142	169	220	267	333	365	413	.8	1.8	
3 508	4	63.7	-	-	-	.01	91.8	83.5	87.7	9.5	135	92	109	121	142	162	204	246	304	334	387	.8	1.5	



TABLE 5. - MOTOR GASOLINE SURVEY, SUMMER 1974  
DATA FOR SOME ADDITIONAL GRADES--CONTINUED

THIRD-GRADE GASOLINE--CONTINUED

DISTRICT AND ITEM NUMBERS	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER		RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86														RES LOSS % %	
							RES, ASTM D2699	MOT., ASTM D2700			R+M ---	TEMPERATURE, F (CORRECTED TO 760 MM HG)														
							PERCENT EVAPORATED														EP					
							IBP	5			10	20	30	50	70	90	95									
3 509	1	57.9	-	-	-	-	93.1	83.2	88.2	137	89	103	116	135	157	219	277	348	385	422	9	1.1				
3 510	9	59.0	.041	-	-	.02	91.6	82.6	87.1	139	88	110	123	146	167	212	267	340	374	426	1.0	1.6				
3 511	2	58.5	-	-	-	-	91.9	83.3	87.6	141	89	106	118	159	179	224	275	339	373	414	1.2	1.8				
3 512	2	58.9	-	-	-	-	91.8	83.3	87.6	137	90	109	122	146	172	224	270	340	368	419	1.3	1.0				
3 513	2	55.5	-	-	-	.02	96.4	86.3	91.4	138	79	-	118	147	-	228	-	315	-	387	1.0	2.0				
3 514	15	61.8	.031	1	-	.01	92.2	84.1	88.2	138	92	105	122	144	162	212	241	312	340	405	1.0	2.0				
3 515	2	55.0	.062	-	-	.01	93.5	83.0	88.3	-	-	-	-	-	-	-	-	-	-	-	-	-				
3 516	5	58.3	.059	-	-	.05	92.5	83.0	87.8	136	87	106	120	146	175	225	271	347	382	427	1.0	1.7				
3 517	1	58.3	-	-	-	-	91.6	83.2	87.4	139	86	102	116	142	168	219	270	338	355	417	1.5	1.5				
4 518	1	57.3	-	-	-	.04	95.4	83.4	89.4	-	-	-	-	-	-	-	-	-	-	-	-	-				
4 519	1	65.5	.024	-	-	-	92.8	85.6	89.2	131	85	103	119	144	172	215	245	320	366	430	1.0	1.5				
4 520	5	56.8	.006	-	-	.01	92.0	83.6	87.8	134	89	106	118	142	169	218	269	331	359	412	1.9	1.3				
4 521	2	64.7	-	-	-	.02	91.1	84.8	88.0	138	90	111	125	150	173	206	233	301	346	392	1.7	1.3				
4 522	2	59.7	-	-	-	.01	93.5	83.9	88.7	-	-	-	-	-	-	-	-	-	-	-	-	-				
4 523	8	63.2	.032	-	-	.02	92.4	84.2	88.3	133	90	106	119	144	171	214	249	318	357	405	1.1	1.6				
4 524	1	54.7	.010	0	.000	.01	91.5	-	-	136	88	102	121	150	174	222	272	336	350	385	1.5	1.5				
4 525	5	60.0	.016	1	.003	.02	91.4	82.6	87.0	128	84	99	111	133	155	208	264	338	371	409	1.0	1.5				
4 526	1	60.3	.019	-	-	-	94.0	86.8	90.4	125	83	98	111	130	149	196	252	325	355	411	1.9	1.6				
4 527	4	59.0	.024	-	-	.01	92.8	84.8	88.8	129	84	101	116	144	173	212	253	339	376	421	1.0	1.2				
4 528	7	61.3	.016	0	.002	.03	92.1	84.1	88.1	131	84	101	114	137	161	212	262	324	349	402	1.0	1.6				
4 529	3	62.0	.045	-	-	.02	92.2	82.8	87.5	125	85	102	114	135	155	194	245	318	351	406	1.9	1.2				
4 530	3	60.0	.013	-	-	.19	92.9	84.4	88.7	141	90	106	121	154	187	227	259	310	333	374	1.9	1.3				
4 531	1	59.8	-	-	-	-	91.2	83.4	87.3	130	86	102	114	140	168	218	260	332	363	400	1.2	1.8				
5 532	3	61.4	.012	2	-	.00	91.5	83.8	87.7	133	87	105	118	140	166	216	256	316	342	398	1.8	1.7				
5 533	4	60.1	.045	0	.002	.01	91.6	82.2	86.9	131	85	102	114	136	161	215	271	358	393	429	1.1	1.2				
5 534	6	58.0	.014	0	.000	.00	91.5	83.6	87.6	144	86	123	149	182	210	252	288	342	359	384	1.0	1.5				
5 535	4	64.0	.021	2	.000	.00	92.0	85.1	88.6	134	89	110	127	157	185	217	252	333	372	412	1.2	1.7				
5 536	2	60.2	.022	1	-	.01	92.1	84.3	88.2	142	91	112	132	165	191	232	265	343	385	428	1.0	1.8				
5 537	2	59.9	.057	1	-	.01	90.8	82.7	86.8	140	92	116	131	159	187	233	271	349	381	432	1.2	1.8				
5 538	1	59.2	.016	1	-	.01	95.4	86.5	91.0	126	90	116	127	157	183	220	245	306	345	408	1.1	1.9				
5 539	3	63.4	.086	0	-	.23	92.0	85.4	88.7	129	84	100	119	144	176	232	265	342	376	430	1.9	2.9				

TABLE 5. - MOTOR GASOLINE SURVEY, SUMMER 1974  
DATA FOR SOME ADDITIONAL GRADES--CONTINUED

THIRD-GRADE GASOLINE--CONTINUED

DISTRICT AND ITEM NUMBERS	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER		RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86										RES X	LOSS %		
							RES, ASTM D2699	MOT., ASTM D2700			TEMPERATURE, F (CORRECTED TO 760 MM HG)		PERCENT EVAPORATED											
											R+M --	2	IBP	5	10	20	30	50	70	90			95	EP
5 540	3	61.7	.010	1	-	.01	91.9	83.8	87.9	10.7	127	87	101	111	131	154	203	260	330	356	392	1.2	1.6	
5 541	1	59.8	.012	1	-	.01	92.0	84.2	88.1	11.0	131	88	103	121	147	172	219	256	314	350	398	1.3	1.7	
5 542	3	58.5	.040	0	-	.02	91.1	82.7	86.9	11.1	128	88	99	115	138	164	216	270	350	394	427	1.2	1.6	
6 543	3	59.9	.008	2	.001	.03	91.9	83.6	87.8	9.9	135	88	106	120	144	170	222	261	314	340	386	.7	2.3	
6 544	3	59.5	.031	0	.002	.01	91.4	82.6	87.0	9.9	139	87	108	124	153	185	232	275	345	380	430	1.1	1.5	
6 545	2	62.5	-	-	-	.02	91.3	84.1	87.7	10.8	133	87	105	121	153	183	222	259	340	387	426	1.0	1.5	
6 546	1	63.1	-	-	-	-	91.6	85.7	88.7	10.1	140	89	112	131	167	197	225	255	333	376	428	1.0	1.5	
6 547	1	60.7	-	-	-	-	91.1	82.3	86.7	10.6	129	82	98	111	134	159	212	262	344	377	420	.7	.8	
6 548	2	59.5	-	-	-	.08	91.3	82.7	87.0	11.2	123	83	94	102	123	154	207	254	334	370	404	.7	1.3	
6 549	1	64.1	-	-	-	-	92.8	83.2	88.0	8.3	140	93	114	127	145	161	197	231	319	375	409	.4	.6	
6 550	1	59.8	.004	1	.000	.00	96.5	87.6	92.1	9.0	140	88	108	123	150	177	220	244	296	330	416	1.0	2.0	
6 551	2	63.4	.001	2	.001	.00	91.7	85.0	88.4	10.1	137	90	113	128	156	183	219	249	322	356	411	.9	1.7	
6 552	1	57.3	-	-	-	-	91.6	83.0	87.3	10.1	130	84	95	109	138	165	205	241	302	346	370	.7	.3	
6 553	3	58.2	.012	0	.001	.12	91.8	83.6	87.7	10.5	131	87	104	116	140	167	219	268	337	377	417	.8	1.0	
7 554	4	62.9	-	-	-	.02	91.5	83.0	87.3	9.9	135	90	109	121	146	172	217	254	328	361	405	1.1	1.2	
7 555	1	62.4	-	-	-	-	90.2	84.4	87.3	8.5	146	88	104	123	160	194	225	260	331	372	412	.7	2.3	
7 556	1	51.2	-	-	-	-	93.1	83.0	88.1	8.8	149	92	111	132	169	203	246	292	351	380	442	1.0	1.0	
7 557	3	58.7	.043	-	-	.04	91.4	82.6	87.0	10.0	133	90	107	118	140	166	218	255	325	359	406	.7	.8	
7 558	2	65.4	.063	-	-	.01	92.0	83.7	87.9	10.4	131	89	105	118	143	169	210	244	316	361	410	1.2	1.8	
7 559	2	59.9	-	-	-	1.86	93.2	85.4	89.3	9.6	135	93	111	123	143	163	211	255	336	374	431	.6	.4	
7 560	2	69.9	-	-	-	-	91.3	87.4	89.4	9.9	139	89	112	131	164	186	209	225	296	344	396	1.2	1.6	
7 561	1	59.2	-	-	-	-	91.1	82.0	86.6	9.3	134	92	110	119	138	157	203	253	318	356	410	1.0	1.0	
7 562	2	57.6	.051	-	-	.02	91.5	81.8	86.7	8.9	141	96	114	126	148	172	225	288	355	382	430	.9	1.1	
7 563	1	60.5	-	-	-	-	92.2	83.6	87.9	9.9	134	92	112	122	144	164	212	256	315	349	400	1.1	.9	
7 564	1	59.9	-	-	-	-	92.2	83.3	87.8	8.9	144	91	114	132	157	188	232	263	306	331	374	.6	.9	
7 565	2	58.7	-	-	-	.03	91.7	82.6	87.2	9.3	134	90	107	117	135	155	205	260	325	353	412	.9	.6	
8 566	4	58.1	.029	-	-	.02	93.6	82.9	88.3	9.5	132	89	105	115	131	149	200	271	350	377	420	.9	.9	
8 567	1	61.2	-	-	-	-	91.7	83.4	87.6	10.8	129	89	104	114	138	161	211	263	331	361	415	1.0	1.0	
8 568	1	71.4	-	-	-	-	90.7	86.4	88.6	11.7	123	84	101	113	134	159	199	222	283	345	408	.7	.8	
8 569	1	57.2	-	-	-	-	93.5	82.0	87.8	8.8	138	92	109	121	139	157	210	265	326	348	406	.9	.6	
8 570	3	60.5	.014	-	-	2.75	94.2	87.4	90.8	9.3	136	90	109	120	140	162	212	262	337	374	410	1.1	1.0	

TABLE 5. - MOTOR GASOLINE SURVEY, SUMMER 1974  
DATA FOR SOME ADDITIONAL GRADES--CONTINUED

THIRD-GRADE GASOLINE--CONTINUED

DISTRICT AND ITEM NUMBERS	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D361 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER			RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86											RES %	LOSS %	
							RES, ASTM D2699	MOT, ASTM D2700	R+M ---			TEMPERATURE, F (CORRECTED TO 760 MM HG)					PERCENT EVAPORATED								
												IBP	5	10	20	30	50	70	90	95	EP				
8 571	3	54.5	.030	-	-	.01	94.3	83.3	88.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.8	-
8 572	5	60.1	.005	-	-	.01	92.7	84.4	88.6	9.5	134	89	108	120	139	161	208	246	306	335	404	-	-	.8	1.0
8 573	5	59.1	.067	4	-	.01	93.1	83.9	88.5	9.4	136	93	109	121	145	170	213	269	347	380	424	-	-	1.1	1.0
8 574	1	58.8	-	-	-	-	91.7	83.2	87.5	9.7	131	86	97	107	130	156	207	251	328	350	406	-	-	.9	1.6
8 575	3	56.1	.033	-	-	.00	92.4	83.7	88.1	9.2	141	90	107	125	153	180	228	278	343	370	416	-	-	.9	1.2
8 576	1	62.9	-	-	-	-	90.8	83.0	86.9	9.9	134	86	104	119	143	168	213	250	341	381	427	-	-	1.0	1.5
8 577	1	58.9	-	-	-	-	93.0	84.3	88.7	10.6	136	86	105	122	156	192	232	261	308	331	376	-	-	.8	1.2
8 578	2	53.8	.065	-	-	.01	94.2	83.4	88.8	10.9	130	85	101	116	142	170	221	264	341	384	430	-	-	1.0	1.5
9 579	2	68.7	.019	-	-	.01	91.7	83.2	87.5	12.2	121	87	103	115	134	154	194	230	288	332	371	-	-	1.0	1.5
9 580	2	62.3	.047	-	-	2.18	92.5	85.1	88.8	9.4	133	92	108	118	137	157	200	254	332	370	425	-	-	1.1	.9
9 581	1	53.6	.035	-	-	-	92.6	82.4	87.5	9.2	147	94	119	139	169	198	243	288	346	378	406	-	-	1.2	1.8
10 582	1	64.7	.045	-	-	-	92.2	83.7	88.0	11.1	127	89	107	120	138	158	204	236	317	366	402	-	-	1.1	.9
10 583	3	65.1	.056	-	-	.02	91.4	85.6	88.5	9.7	138	91	112	127	156	184	209	236	301	343	399	-	-	.8	1.3
10 584	1	66.5	.060	-	-	-	92.3	84.0	88.2	9.1	131	90	107	116	132	146	183	221	311	362	400	-	-	1.0	1.0
10 585	5	63.2	.074	-	-	1.82	92.4	84.9	88.7	9.4	132	92	108	118	134	152	193	238	319	363	413	-	-	.9	1.1
10 586	1	68.9	-	-	-	-	91.2	85.8	88.5	8.8	141	92	112	130	157	180	206	249	300	344	384	-	-	1.1	1.4
10 587	5	60.9	.066	-	-	.02	91.2	82.5	86.9	10.2	133	88	108	122	147	173	212	244	293	321	377	-	-	.7	1.5
10 588	1	65.0	.052	-	-	-	92.2	83.4	87.8	9.5	132	87	105	116	135	154	197	231	296	335	420	-	-	.7	1.8
11 589	1	64.3	-	-	-	-	91.8	83.6	87.7	9.2	138	89	106	119	145	173	219	257	347	387	423	-	-	1.2	1.3
11 590	3	65.3	.033	0	.000	.01	91.1	85.0	88.1	9.4	140	90	111	128	157	183	217	248	321	357	412	-	-	1.0	1.5
11 591	1	55.8	.058	-	-	-	90.8	82.1	86.5	7.6	152	95	117	133	161	187	238	280	342	373	445	-	-	1.0	1.0
11 592	1	61.9	.016	-	-	-	92.0	83.4	87.7	9.0	145	94	116	133	160	185	234	280	342	378	430	-	-	1.0	1.0
11 593	3	58.2	.016	-	-	1.53	92.9	84.9	88.9	8.5	141	90	108	121	145	167	219	275	345	380	432	-	-	.8	1.2
11 594	1	64.4	-	-	-	-	91.2	83.4	87.3	10.0	133	86	100	115	145	173	212	247	327	365	412	-	-	.8	1.7
11 595	2	63.9	.030	0	.001	.00	91.2	85.6	88.4	9.4	139	88	109	125	154	179	218	255	347	383	418	-	-	.9	1.4
11 596	1	61.0	-	-	-	.01	92.0	84.5	88.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11 597	3	63.2	.015	-	-	.02	92.3	84.2	88.3	9.5	132	86	100	112	134	158	200	234	307	348	399	-	-	1.1	1.2
11 598	1	64.7	-	-	-	-	91.1	83.4	87.3	9.5	141	92	116	133	160	186	222	256	340	375	432	-	-	1.0	1.5
11 599	1	64.8	-	-	-	-	90.8	83.4	87.1	9.6	137	86	106	124	152	178	221	251	331	368	417	-	-	.8	.7
11 600	1	56.3	.004	-	-	-	90.6	82.0	86.3	8.1	146	90	110	127	153	179	226	272	324	342	376	-	-	1.0	1.0
11 601	1	65.5	-	-	-	-	91.1	83.4	87.3	10.9	131	87	105	121	149	176	217	252	333	367	418	-	-	.8	1.7



TABLE 5. - MOTOR GASOLINE SURVEY, SUMMER 1974  
DATA FOR SOME ADDITIONAL GRADES--CONTINUED

THIRD-GRADE GASOLINE--CONTINUED

DISTRICT AND ITEM NUMBERS	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D361 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER		RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86										RES LOSS			
							RES, ASTM D2699	MOT, ASTM D2700			R+M -- 2	TEMPERATURE, F (CORRECTED TO 760 MM HG)					PERCENT EVAPORATED					EP	%	%
												5	10	20	30	50	70	90	95					
11 602	3	61.1	.029	-	-	.16	91.7	83.2	87.5	135	88	105	118	142	169	217	261	345	376	417	1.1	1.2		
11 603	1	68.7	-	-	-	-	91.7	85.9	88.8	126	82	96	106	132	162	197	223	313	352	394	.6	.7		
12 604	3	58.7	.027	2	.001	.01	91.7	84.0	87.9	133	93	107	116	131	145	192	272	351	381	423	1.0	1.0		
12 605	1	59.7	-	-	-	-	92.1	82.6	87.4	135	88	104	118	143	170	220	270	347	386	418	1.2	1.3		
12 606	2	62.8	-	-	-	2.77	92.2	84.6	88.4	129	86	96	106	120	137	199	239	307	338	397	.8	1.2		
12 607	1	59.4	-	-	-	-	92.1	83.4	87.6	137	90	108	123	149	176	224	274	353	390	426	.8	1.2		
12 608	1	59.4	-	-	-	-	91.7	84.5	88.1	135	86	102	116	143	170	221	270	362	394	418	.7	1.3		
12 609	3	57.9	.030	1	.001	.03	92.5	83.9	88.2	138	86	95	110	136	162	226	272	333	372	416	1.0	2.0		
12 610	3	62.1	.012	1	.001	.02	92.5	84.1	88.3	133	88	103	116	136	157	202	233	299	339	402	.9	1.1		
12 611	1	58.8	-	-	-	-	91.0	82.4	86.7	138	91	114	123	143	167	204	264	328	368	419	.8	1.2		
12 612	1	59.0	-	-	-	-	91.9	83.3	87.6	142	92	112	127	152	179	229	282	353	382	428	.8	1.2		
12 613	1	53.0	.003	-	.001	.01	95.4	86.4	90.9	141	89	106	128	163	202	236	256	325	364	398	1.0	2.0		
12 614	1	60.7	-	-	-	-	91.8	83.1	87.5	131	86	93	104	126	155	202	250	333	362	406	1.0	1.0		
12 615	3	60.0	-	-	-	.02	91.6	83.7	87.7	136	91	107	116	130	147	205	249	323	358	398	1.2	.6		
12 616	2	57.0	.018	1	.001	.01	91.3	82.3	86.8	144	91	112	130	161	190	240	287	333	352	393	1.0	1.3		
13 617	1	54.5	.010	3	.000	.53	92.4	84.0	88.2	157	94	121	139	167	192	237	285	346	375	427	1.0	2.0		
13 618	6	60.9	.023	-	-	1.73	91.2	84.2	87.7	144	97	117	130	152	171	213	264	338	372	415	1.2	1.1		
13 619	1	61.8	-	-	-	-	88.2	81.8	85.0	139	92	116	127	148	172	218	260	349	386	440	1.0	1.5		
13 620	4	58.6	.010	6	.000	.01	91.8	85.3	88.6	147	97	118	131	155	183	224	264	315	338	405	.6	.9		
13 621	4	61.1	-	-	-	.00	90.2	81.9	86.1	146	93	111	127	156	189	235	276	342	374	413	1.1	2.0		
13 622	2	59.8	-	-	-	-	91.5	82.4	87.0	144	91	109	125	155	186	233	277	348	375	417	.8	1.0		
13 623	2	59.0	-	-	-	-	91.1	83.3	87.2	147	98	118	131	152	172	211	259	326	360	401	.7	1.1		
13 624	1	63.7	-	-	-	-	87.9	81.7	84.8	143	93	111	124	146	173	223	265	349	387	430	1.1	.9		
13 625	2	62.9	.055	-	-	-	92.0	82.8	86.4	143	100	120	130	145	161	203	239	328	370	415	1.1	.7		
13 626	2	58.6	-	-	-	-	90.2	83.2	86.7	147	94	112	125	148	173	217	259	323	354	405	1.0	1.3		
13 627	2	59.1	-	-	-	.02	95.4	86.3	90.9	149	96	120	136	162	181	225	243	321	335	400	.5	.6		
13 628	6	57.4	.028	-	-	.02	92.2	83.5	87.9	146	96	118	130	153	175	220	258	330	359	411	.8	1.2		
13 629	7	59.0	.030	5	.001	.04	91.1	83.7	87.4	153	100	127	141	165	192	229	270	326	359	406	.7	1.1		
13 630	5	60.8	-	-	-	.01	90.6	82.7	86.7	147	95	117	130	156	180	226	267	320	349	394	.7	1.3		
13 631	1	58.4	-	-	-	.02	95.0	87.3	91.2	146	99	-	134	159	-	229	-	341	-	412	.0	.0		
13 632	2	65.3	-	-	-	-	89.0	82.8	85.9	148	95	121	134	155	177	216	247	319	364	406	1.0	1.1		

TABLE 5. - MOTOR GASOLINE SURVEY, SUMMER 1974  
DATA FOR SOME ADDITIONAL GRADES--CONTINUED

THIRD-GRADE GASOLINE--CONTINUED

DISTRICT AND ITEM NUMBERS	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER		RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86											RES LOSS % X	
							RES, ASTM D2699	MOT, ASTM D2700			R+M --	TEMPERATURE, F (CORRECTED TO 760 MM HG)											
												PERCENT EVAPORATED											EF
												IBP	5	10	20	30	50	70	90	95			
14 633	4	63.6	.018	5	.000	.01	91.3	82.5	86.9	9.4	138	91	109	124	148	170	214	251	321	357	414	.8	1.7
14 634	4	61.5	.050	0	.000	1.85	91.6	84.6	88.1	8.9	140	93	114	127	148	169	211	257	326	357	411	.8	1.3
14 635	-	59.5	-	-	-	.02	90.6	81.7	86.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14 636	2	65.1	.069	1	.000	.01	91.1	85.9	88.5	8.3	148	97	116	135	165	187	219	245	326	363	406	.9	1.5
14 637	1	62.9	-	-	-	-	91.7	84.8	88.3	7.9	147	94	116	130	155	179	218	252	317	348	392	.9	1.1
14 638	1	58.8	-	-	-	-	93.0	82.8	87.9	9.2	139	91	110	124	148	174	217	252	311	338	390	.9	1.6
14 639	1	62.4	-	-	-	-	91.7	84.8	88.3	7.6	151	95	119	134	160	187	223	253	317	344	392	1.0	1.5
14 640	3	71.7	.010	1	.000	.02	92.6	88.2	90.4	7.8	147	91	114	131	154	175	208	226	258	308	377	1.0	1.8
14 641	1	59.0	-	-	-	-	91.9	83.2	87.6	9.2	139	90	114	126	150	176	216	253	311	341	386	1.0	1.0
15 642	3	59.0	.012	1	.001	.02	91.5	82.2	86.9	8.4	143	93	115	128	150	172	217	260	317	339	385	1.2	1.2
15 643	3	59.7	.010	2	.001	.03	90.3	83.3	86.8	8.6	145	92	111	127	157	184	227	265	324	349	401	1.0	1.7
15 644	1	62.7	.008	3	.002	.15	94.7	85.7	90.2	8.2	145	96	120	133	157	178	210	240	296	324	375	1.0	1.5
15 645	1	60.9	.010	-	-	-	92.2	82.6	87.4	9.2	142	95	116	130	157	182	228	266	320	342	384	1.0	1.5
15 646	4	58.1	.009	1	.002	.01	91.5	84.7	88.1	7.7	151	96	121	136	158	177	229	266	319	340	399	.9	1.3
15 647	2	59.6	.007	5	.001	.02	92.4	83.8	88.1	11.2	128	78	97	111	134	165	220	259	310	331	366	1.0	3.0
16 648	4	58.5	.016	1	.000	.01	91.4	84.2	87.8	8.5	146	96	117	133	157	183	225	266	329	357	403	.9	1.4
16 649	1	54.6	-	-	-	-	92.0	83.8	87.9	9.0	139	87	106	118	144	169	226	273	320	355	394	.9	2.1
16 650	2	56.2	.021	0	.000	.02	90.5	82.7	86.6	8.4	148	101	118	134	162	187	234	281	351	376	405	1.0	1.5
16 651	3	52.1	.010	1	.001	.03	91.5	83.0	87.3	8.6	151	101	119	137	171	201	248	283	329	360	411	.9	1.9
16 652	1	57.8	-	-	-	-	91.6	83.8	87.7	7.8	152	100	121	136	167	195	232	274	340	368	396	.8	2.2
16 653	2	59.8	.008	-	-	.00	96.6	86.1	91.4	8.2	146	96	115	132	158	182	216	250	312	364	403	1.2	1.6
16 654	3	58.1	.008	3	.000	.03	90.9	82.6	86.8	8.0	143	105	119	130	146	161	205	257	326	351	401	.9	1.4
16 655	4	58.7	.008	2	.001	.02	91.7	82.8	87.3	8.0	143	100	118	128	145	162	208	262	331	362	409	1.0	1.0
16 656	1	56.5	-	-	-	-	92.0	82.8	87.4	8.5	146	92	117	136	161	187	225	280	342	372	418	1.1	1.9
17 657	3	54.0	.013	-	-	.01	91.1	82.6	86.9	8.8	145	88	106	124	155	188	238	282	333	371	391	1.5	2.3
17 658	1	54.6	.013	-	-	.02	91.2	82.7	87.0	9.4	140	95	108	124	150	181	230	277	330	363	398	1.0	2.5
17 659	5	58.5	.010	1	.001	.02	92.1	84.9	88.5	8.6	143	92	110	124	146	172	228	268	316	343	397	1.0	1.4
17 660	1	55.3	.011	-	-	.01	97.3	85.5	91.4	8.3	145	96	113	132	159	181	214	244	287	314	356	1.0	2.0
17 661	5	55.6	.046	2	.001	.08	91.9	82.5	87.2	7.2	154	98	118	135	161	187	230	278	341	372	420	1.1	1.2
17 662	6	58.0	.057	1	.001	.02	91.4	82.4	86.9	8.2	143	94	115	126	148	168	211	257	317	349	393	1.1	1.3
17 663	5	58.7	.009	1	.001	.00	91.3	84.1	87.7	7.9	148	95	117	136	158	180	217	247	294	315	364	1.1	1.2
AVERAGE	491	60.0	.028	1	.001	.19	92.2	83.8	88.0	9.4	138	90	109	123	148	173	218	260	327	360	408	1.0	1.4

TABLE 5. - MOTOR GASOLINE SURVEY, SUMMER 1974.  
DATA FOR SOME ADDITIONAL GRADES--CONTINUED

## INTERMEDIATE-GRADE GASOLINE

DISTRICT AND ITEM NUMBERS	SAM- PLES	GR., ASTM D287 API	SULF, ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS. ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER		RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86																RES %	LOSS %	
							RES, ASTM D2699	MOT, ASTM D2700			TEMPERATURE, F (CORRECTED TO 760 MM HG)																		
											R+M --= 2	PERCENT EVAPORATED																	
												IBP	5	10	20	30	50	70	90	95	EP								
1 664	1	58.9	0.023	-	-	-	95.2	85.6	90.4	10.2	136	93	110	121	148	174	232	267	322	346	390	0.8	2.2						
1 665	1	59.8	.020	1	-	.00	91.3	83.7	87.5	10.3	-	90	-	119	-	-	232	-	340	-	428	1.0	1.0						
2 666	6	56.7	.006	1	0.001	.02	96.6	86.7	91.7	9.4	138	86	106	120	148	179	222	251	307	339	394	.8	1.6						
2 667	1	57.1	.020	1	.001	.01	92.0	83.1	87.6	8.4	144	78	99	116	150	183	232	274	337	364	408	1.0	2.0						
2 668	2	56.7	.058	3	.001	.02	93.3	83.5	88.4	10.6	133	89	110	118	141	169	228	274	348	381	425	1.0	2.3						
2 669	1	56.6	.010	1	.001	.01	91.3	82.9	87.1	9.9	133	84	102	116	138	160	216	276	330	358	416	1.0	1.0						
2 670	2	60.8	.020	1	-	.00	91.4	83.9	87.7	10.4	133	86	-	118	148	178	215	-	320	-	416	1.0	1.5						
2 671	1	60.0	.020	3	.001	2.62	98.5	89.8	94.2	9.5	133	90	102	116	136	156	205	260	332	370	426	1.0	2.0						
2 672	1	54.7	.016	0	.002	.05	96.8	86.5	91.7	9.4	147	92	116	138	176	205	237	258	308	340	394	1.0	1.5						
3 673	6	59.5	.031	-	-	.03	96.4	86.2	91.3	9.4	137	92	109	122	145	167	216	256	312	338	405	1.0	1.4						
4 674	3	59.0	.016	-	-	.01	96.4	87.0	91.7	9.7	136	88	107	121	149	177	215	237	289	335	396	1.1	1.4						
4 675	1	66.3	.010	0	-	.01	91.5	88.0	89.8	10.8	-	84	-	119	-	-	213	-	326	-	408	1.0	1.0						
5 676	2	58.8	.013	-	-	.02	96.2	87.0	91.6	9.3	137	87	109	124	150	178	208	230	279	314	366	.9	1.6						
6 677	2	58.5	-	-	-	.00	95.9	86.8	91.4	9.6	133	89	103	115	139	169	206	234	290	326	396	.8	1.2						
7 678	1	59.4	.010	1	.002	.01	91.4	83.5	87.5	10.0	136	88	110	127	148	171	219	260	316	351	386	1.0	2.5						
7 679	2	59.0	.005	1	.002	.06	91.4	82.8	87.1	11.2	127	89	102	117	135	159	210	261	329	377	405	1.1	2.4						
7 680	6	60.5	.003	1	.002	.01	96.3	87.5	91.9	9.5	139	93	113	128	155	180	215	237	289	331	399	1.1	1.4						
8 681	6	57.8	.037	-	-	.02	96.7	86.7	91.7	9.3	136	87	103	116	141	169	215	251	313	339	379	1.0	1.0						



TABLE 5. - MOTOR GASOLINE SURVEY, SUMMER 1974  
DATA FOR SOME ADDITIONAL GRADES--CONTINUED

INTERMEDIATE-GRADE GASOLINE--CONTINUED

DISTRICT AND ITEM NUMBERS	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER		RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86																RES % X	LOSS % X				
							RES, ASTM D2699	MOT, ASTM D2700			R+M --	TEMPERATURE, F (CORRECTED TO 760 MM HG)																				
												PERCENT EVAPORATED																				
												IBP	5	10	20	30	50	70	90	95	EP											
9 682	1	54.7	-	-	-	.03	96.6	86.4	91.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
9 683	1	63.4	.080	1	-	.01	91.5	83.4	87.5	11.5	88	115	140	169	213	-	341	-	419	-	-	-	-	-	-	-	-	-	-	-		
10 684	2	63.0	.027	-	-	.02	95.4	86.5	91.0	9.9	89	104	117	139	165	205	238	293	344	411	-	-	-	-	-	-	-	-	-	-	-	
11 685	1	67.8	.020	0	-	.00	91.1	87.7	89.4	9.6	88	-	143	182	201	220	-	299	-	370	-	-	-	-	-	-	-	-	-	-	-	
11 686	2	53.6	.006	-	-	.00	97.0	86.0	91.5	9.4	88	106	122	154	192	231	248	305	343	374	-	-	-	-	-	-	-	-	-	-	-	
12 687	2	55.5	-	-	-	.01	96.6	86.6	91.6	9.7	85	99	113	134	163	223	247	296	328	399	-	-	-	-	-	-	-	-	-	-	-	
12 688	1	59.6	.020	1	-	.00	91.0	83.1	87.1	8.3	88	-	114	-	-	210	-	314	-	418	-	-	-	-	-	-	-	-	-	-	-	
13 689	4	58.9	.008	4	.000	.03	94.8	86.2	90.5	7.9	95	116	130	154	178	220	249	309	339	396	-	-	-	-	-	-	-	-	-	-	-	-
14 690	1	65.1	.010	1	.000	1.65	95.3	89.2	92.3	10.3	94	107	120	141	166	212	251	334	374	421	-	-	-	-	-	-	-	-	-	-	-	-
14 691	7	57.4	.014	1	.001	.06	96.7	86.3	91.5	9.4	96	116	130	156	181	217	251	303	327	381	-	-	-	-	-	-	-	-	-	-	-	-
14 692	1	55.7	.020	-	-	.01	94.7	85.6	90.2	10.4	92	109	122	151	185	238	278	328	356	424	-	-	-	-	-	-	-	-	-	-	-	-
15 693	3	57.4	.011	2	.000	.01	96.8	86.7	91.8	9.1	95	114	130	156	180	218	261	303	323	370	-	-	-	-	-	-	-	-	-	-	-	-
15 694	1	64.6	.010	0	-	.01	91.4	86.6	89.0	10.5	85	-	130	-	-	222	-	317	-	397	-	-	-	-	-	-	-	-	-	-	-	
16 695	2	59.6	.010	1	.000	.02	96.6	86.3	91.5	8.2	90	111	128	155	177	215	250	323	361	412	-	-	-	-	-	-	-	-	-	-	-	-
17 696	1	54.5	-	-	-	.05	92.1	82.6	87.4	-	95	122	137	161	182	217	247	301	327	371	-	-	-	-	-	-	-	-	-	-	-	-
17 697	5	56.9	.030	2	.001	.01	97.2	86.4	91.8	8.4	95	-	130	-	-	220	-	346	-	419	-	-	-	-	-	-	-	-	-	-	-	
17 698	1	55.4	.040	1	-	.00	91.9	82.4	87.2	7.2	95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
AVERAGE		58.9	.020	1	.001	.18	94.4	85.7	90.1	9.6	89	108	123	149	175	219	254	315	345	401	-	-	-	-	-	-	-	-	-	-	-	-
SAMPLES																																



TABLE 6. - MOTOR GASOLINE SURVEY, SUMMER 1974  
ANALYSES OF LOW-LEAD CONTENT GASOLINE

DISTRICT	GRADE	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER		RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86												RES LOSS % %	
								RES, ASTM D2699	MOT, ASTM D2700			R+M --- 2	TEMPERATURE, F (CORRECTED TO 760 MM HG)												
													PERCENT EVAPORATED												
													1BP	5	10	20	30	50	70	90	95	EP			
1	THIRD GRADE	1	58.2	-	-	-	.12	95.4	83.9	89.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	THIRD GRADE	1	53.0	-	-	-	.12	96.1	86.5	91.3	10.2	134	80	-	110	140	-	238	-	326	-	400	-	1.0	1.0
1	THIRD GRADE	1	56.8	-	-	-	.09	90.9	82.0	86.5	7.9	147	84	-	129	147	-	233	-	327	-	388	-	1.0	1.5
3	PREMIUM	1	56.4	-	-	-	.08	100.6	90.5	95.6	10.5	129	78	-	107	137	-	215	-	284	-	394	-	1.0	2.0
4	THIRD GRADE	1	62.3	-	-	-	.19	93.5	85.2	89.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	THIRD GRADE	1	65.6	-	-	-	.44	93.4	87.0	90.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	THIRD GRADE	1	60.1	-	-	-	.08	91.5	82.6	87.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	THIRD GRADE	1	59.6	.012	0	.001	.23	93.4	85.2	89.3	9.9	133	89	108	119	140	165	214	263	335	377	408	-	1.0	1.0
7	INTERMEDIATE	1	59.6	.002	1	.002	.08	91.4	82.6	87.0	12.1	123	86	101	113	131	156	210	262	332	382	409	-	1.2	2.3
11	THIRD GRADE	1	65.3	.037	-	-	.16	91.9	84.2	88.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	THIRD GRADE	1	54.0	.030	5	.001	.08	91.9	82.4	87.2	6.8	160	97	128	146	170	193	236	280	340	367	430	-	1.0	2.0
13	REGULAR	1	58.3	-	-	-	.48	93.1	86.0	89.6	8.3	142	100	-	129	145	-	208	-	312	-	385	-	.0	.0
14	REGULAR	1	57.1	.004	-	-	.10	93.0	85.3	89.2	11.2	130	73	97	112	144	183	230	268	316	340	388	-	1.0	1.0
14	INTERMEDIATE	2	57.7	.017	-	-	.12	96.4	87.3	91.9	9.0	142	101	119	133	158	182	218	250	303	326	384	-	1.0	1.8
15	THIRD GRADE	1	62.7	.008	3	.002	.15	94.7	85.7	90.2	8.2	145	96	120	133	157	178	210	240	296	324	375	-	1.0	1.5
16	REGULAR	3	59.1	.010	1	.000	.48	93.6	85.1	89.4	8.2	143	96	120	131	147	163	207	270	332	356	414	-	.9	1.4
17	THIRD GRADE	1	56.8	-	-	-	.30	94.3	84.5	89.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	REGULAR	3	61.0	.046	3	-	.48	93.4	84.7	89.1	8.9	138	97	112	124	142	160	204	255	337	377	412	-	.9	2.2



TABLE 7. - MOTOR GASOLINE SURVEY, SUMMER 1974  
ANALYSES OF UNLEADED GASOLINE

DISTRICT	GRADE	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER		RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86														RES %	LOSS %
								RES, ASTM D2699	MOT., ASTM D2700			TEMPERATURE, F (CORRECTED TO 760 MM HG)															
												PERCENT EVAPORATED															
												IBP	5	10	20	30	50	70	90	95	EP						
1	THIRD GRADE	1	58.5	-	-	-	.01	92.0	83.8	87.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	THIRD GRADE	1	64.6	-	-	-	.02	92.5	83.1	87.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	THIRD GRADE	2	56.7	-	-	-	.01	94.2	83.8	89.0	118	74	-	106	128	-	209	-	361	-	430	-	430	1.0	3.0	-	-
1	THIRD GRADE	1	57.0	-	-	-	.01	92.6	83.1	87.9	147	94	-	120	148	-	238	-	320	-	400	-	400	1.0	2.0	-	-
1	THIRD GRADE	1	57.7	-	-	-	.02	90.7	83.6	87.2	147	100	-	132	155	-	239	-	330	-	420	-	420	1.0	1.5	-	-
1	REGULAR	1	62.2	.030	1	.001	.01	91.1	83.0	87.1	143	98	-	137	162	186	224	259	349	-	418	-	418	1.0	3.0	-	-
1	INTERMEDIATE	1	59.8	.020	1	-	.00	91.3	83.7	87.5	-	90	-	119	-	-	232	-	340	-	428	-	428	1.0	1.0	-	-
1	PREMIUM	1	52.8	-	-	-	.04	101.1	90.3	95.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	THIRD GRADE	6	58.5	.028	1	.001	.02	94.0	83.3	88.7	134	91	104	117	137	155	212	279	347	377	420	-	420	1.2	1.5	-	-
2	THIRD GRADE	4	57.0	.007	0	.001	.02	92.3	84.2	88.3	135	89	104	116	135	157	223	289	343	371	427	-	427	1.1	1.4	-	-
2	THIRD GRADE	3	60.5	.030	1	.002	.03	91.4	83.6	87.5	141	86	107	125	156	185	228	268	344	383	432	-	432	1.0	2.0	-	-
2	THIRD GRADE	2	60.4	-	-	-	.06	93.6	85.6	89.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	THIRD GRADE	5	59.0	.053	1	.001	.02	93.1	84.1	88.6	146	91	110	123	155	170	219	252	336	376	418	-	418	1.0	2.0	-	-
2	THIRD GRADE	6	58.9	.015	1	.001	.03	92.6	84.0	88.3	148	82	110	127	159	190	239	279	336	363	415	-	415	1.2	1.5	-	-
2	THIRD GRADE	1	55.2	.007	0	.001	.03	97.2	86.3	91.8	136	96	110	120	141	173	231	250	318	348	398	-	398	1.3	2.0	-	-
2	THIRD GRADE	4	59.3	.015	0	.001	.02	91.6	83.5	87.6	144	91	110	125	150	178	231	271	335	369	422	-	422	1.1	1.7	-	-
2	THIRD GRADE	1	54.4	.024	0	.001	.01	94.0	83.4	88.7	137	95	112	126	155	187	240	281	332	358	413	-	413	1.4	1.9	-	-
2	THIRD GRADE	1	57.6	.021	3	.000	.01	92.9	83.1	88.0	136	89	110	121	141	164	228	285	352	388	405	-	405	3.2	.8	-	-
2	THIRD GRADE	3	61.6	.019	2	.001	.02	91.5	83.5	87.5	139	93	108	125	153	183	231	269	316	344	385	-	385	1.2	2.3	-	-
2	THIRD GRADE	2	63.5	.028	1	.003	.03	93.9	85.4	89.7	143	93	109	122	141	164	220	266	345	368	414	-	414	.8	2.0	-	-
2	THIRD GRADE	1	59.1	.030	1	.001	.02	92.1	83.6	87.9	136	91	99	117	145	174	226	274	344	376	421	-	421	1.0	3.5	-	-
2	REGULAR	1	63.0	.030	1	.001	.01	91.4	83.2	87.3	139	88	-	129	155	180	217	252	335	-	417	-	417	1.0	3.5	-	-
2	REGULAR	1	57.2	.050	1	.001	.00	94.6	84.5	89.6	139	90	104	122	149	175	231	275	339	366	412	-	412	1.0	2.0	-	-
2	REGULAR	1	56.1	.010	2	.001	.00	92.8	83.8	88.3	153	90	98	129	158	188	240	283	339	366	416	-	416	1.0	2.0	-	-
2	REGULAR	1	54.8	.007	2	.001	.00	97.0	86.7	91.9	134	87	100	116	141	175	232	256	323	352	385	-	385	1.0	2.0	-	-
2	REGULAR	1	60.8	.010	3	.001	.00	91.8	85.4	88.6	136	84	90	117	151	185	225	259	327	359	410	-	410	1.0	4.0	-	-
2	INTERMEDIATE	1	56.6	.010	1	.001	.01	91.3	82.9	87.1	133	84	102	116	131	160	216	276	330	358	416	-	416	1.0	1.0	-	-
2	INTERMEDIATE	2	56.7	.058	3	.001	.02	93.3	83.5	88.4	133	89	110	118	141	169	228	274	348	381	425	-	425	1.0	2.3	-	-
2	INTERMEDIATE	1	57.1	.020	1	.001	.01	92.0	83.1	87.6	144	78	99	116	150	183	232	274	337	364	408	-	408	1.0	2.0	-	-
2	INTERMEDIATE	3	56.7	.006	1	.001	.02	96.8	86.8	91.8	144	76	105	126	161	197	233	252	318	354	393	-	393	1.0	3.0	-	-
2	INTERMEDIATE	2	60.8	.020	1	-	.00	91.4	83.9	87.7	133	86	-	118	148	178	215	-	320	-	416	-	416	1.0	1.5	-	-
2	INTERMEDIATE	1	54.7	.016	0	.002	.05	96.8	86.5	91.7	147	92	116	138	176	205	237	258	308	340	394	-	394	1.0	1.5	-	-
2	PREMIUM	1	55.4	.009	1	.001	.01	100.8	90.6	95.7	128	83	88	106	132	163	225	254	327	354	397	-	397	1.0	3.0	-	-

TABLE 7. - MOTOR GASOLINE SURVEY, SUMMER 1974  
ANALYSES OF UNLEADED GASOLINE--CONTINUED

DISTRICT	GRADE	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER			RVP, ASTM D323 LB	20V/L ASTM D439 F	TEMPERATURE, F (CORRECTED TO 760 MM HG)										DISTILLATION, ASTM D86			RES LOSS % X	
								RES, ASTM D2699	MOT, ASTM D2700	R+M --- 2			IBP	5	10	20	30	50	70	90	95	EP	RES LOSS % X				
3	THIRD GRADE	6	58.2	.030	-	-	.02	93.6	82.9	88.3	10.2	128	85	-	111	128	-	201	-	345	-	416	1.0	2.0	-	-	-
3	THIRD GRADE	1	62.4	-	-	-	.04	92.9	85.1	89.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	THIRD GRADE	2	60.4	.059	-	-	.05	92.6	82.7	87.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	THIRD GRADE	12	55.0	.062	-	-	.01	93.5	83.0	88.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	THIRD GRADE	12	61.9	.031	1	-	.01	92.2	84.1	88.2	9.1	138	93	-	124	146	-	213	-	314	-	407	1.0	2.2	-	-	-
3	THIRD GRADE	2	55.5	-	-	-	.02	95.4	86.3	91.4	9.5	138	79	-	118	147	-	228	-	315	-	387	1.0	2.0	-	-	-
3	THIRD GRADE	6	58.5	.041	-	-	.02	91.5	82.6	87.1	8.8	139	85	-	123	146	-	211	-	343	-	431	1.0	2.0	-	-	-
3	THIRD GRADE	1	67.0	-	-	-	.01	91.2	84.0	87.6	10.2	130	92	-	120	138	-	200	-	291	-	382	1.0	2.0	-	-	-
3	THIRD GRADE	2	59.5	-	-	-	.01	91.6	83.0	87.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	REGULAR	1	63.1	.030	1	.001	.01	91.2	83.5	87.4	9.7	139	86	-	127	159	186	221	254	346	-	423	1.0	3.0	-	-	-
3	INTERMEDIATE	3	61.1	.031	-	-	.03	96.7	86.5	91.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	PREMIUM	5	55.6	.060	-	-	.01	100.9	90.5	95.7	10.1	135	80	-	115	143	-	230	-	319	-	399	1.0	2.0	-	-	-
4	THIRD GRADE	1	57.3	-	-	-	.04	95.4	83.4	89.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	THIRD GRADE	2	55.2	-	-	-	.01	92.8	84.1	88.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	THIRD GRADE	1	65.3	-	-	-	.02	90.4	85.5	88.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	THIRD GRADE	2	59.7	-	-	-	.01	93.5	83.9	88.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	THIRD GRADE	4	63.4	-	-	-	.02	92.5	84.5	88.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	THIRD GRADE	1	54.7	.010	0	.000	.01	91.5	-	-	10.0	136	88	102	121	150	174	222	272	336	350	385	1.5	1.5	-	-	-
4	THIRD GRADE	3	59.9	.011	1	.003	.02	91.3	82.8	87.1	10.4	129	82	98	111	134	157	208	260	323	353	400	1.1	1.5	-	-	-
4	THIRD GRADE	1	54.3	-	-	-	.01	94.8	85.4	90.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	THIRD GRADE	4	61.5	.008	0	.002	.03	92.2	84.2	88.2	10.6	130	79	99	113	139	164	214	265	329	350	406	1.1	1.6	-	-	-
4	THIRD GRADE	1	64.0	-	-	-	.02	92.6	82.8	87.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	INTERMEDIATE	1	57.5	-	-	-	.01	96.8	87.2	92.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	INTERMEDIATE	1	66.3	.010	0	-	.01	91.5	88.0	89.8	10.8	-	84	-	119	-	-	213	-	326	-	408	1.0	1.0	-	-	-
4	PREMIUM	2	55.5	-	-	-	.02	101.1	91.4	96.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	SUPER-PREMIUM	1	54.8	.002	0	.000	.05	100.3	89.5	94.9	10.3	135	90	109	121	145	175	231	255	327	350	379	1.0	2.0	-	-	-
5	THIRD GRADE	2	61.9	.014	2	-	.00	91.5	84.0	87.8	10.0	135	87	109	121	145	171	221	258	321	350	399	.8	1.2	-	-	-
5	THIRD GRADE	1	59.8	-	-	-	.01	90.6	82.5	86.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	THIRD GRADE	1	61.3	.014	1	-	.01	92.2	85.4	88.8	9.6	143	91	112	133	169	192	229	257	339	379	421	.7	2.3	-	-	-
5	THIRD GRADE	3	63.9	.020	2	.000	.00	91.9	85.0	88.5	11.5	132	89	110	126	156	184	215	252	333	371	410	1.3	1.6	-	-	-
5	THIRD GRADE	6	58.0	.014	0	.000	.00	91.5	83.6	87.6	11.0	144	86	123	149	182	210	252	288	342	359	384	1.0	.5	-	-	-
5	THIRD GRADE	2	60.0	.042	2	.002	.01	91.5	82.0	86.8	10.1	131	85	102	113	135	160	214	272	360	393	430	1.2	1.2	-	-	-
5	THIRD GRADE	1	59.2	.016	1	-	.01	95.4	86.5	91.0	13.0	126	90	116	127	157	183	220	245	306	345	408	1.1	.9	-	-	-
5	THIRD GRADE	1	61.4	.099	0	-	.01	91.7	84.6	88.2	10.9	128	83	100	119	131	158	232	267	348	386	428	.7	2.8	-	-	-
5	THIRD GRADE	2	61.7	.010	1	-	.01	91.9	83.8	87.9	11.2	125	84	99	109	130	155	204	257	330	358	390	1.3	1.7	-	-	-
5	THIRD GRADE	1	59.8	.012	1	-	.01	92.0	84.2	88.1	11.0	131	88	103	121	147	172	219	256	314	350	398	1.3	1.7	-	-	-
5	THIRD GRADE	2	58.0	.035	0	-	.02	90.7	82.9	86.8	11.3	127	84	91	112	138	166	215	263	344	387	422	1.2	1.8	-	-	-





TABLE 7. - MOTOR GASOLINE SURVEY, SUMMER 1974  
ANALYSES OF UNLEADED GASOLINE--CONTINUED

DISTRICT	GRADE	SAM- PLES	GR., ASTM D287 API	SULF., D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER		RVP, ASTM D323 LB	20V/L ASTM D439 F	DISTILLATION, ASTM D86														RES LOSS % X
								RES, ASTM D2699	MOT., ASTM D2700			TEMPERATURE, F (CORRECTED TO 760 MM HG)	PERCENT EVAPORATED										EP			
													IBP													
														5	10	20	30	50	70	90	95					
9	THIRD GRADE	1	68.9	-	-	-	.01	91.5	83.8	87.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
9	INTERMEDIATE	1	54.7	-	-	-	.03	96.6	86.4	91.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
9	INTERMEDIATE	1	63.4	.080	1	-	.01	91.5	83.4	87.5	11.5	127	88	-	115	140	169	213	-	341	-	419	-	-	-	
10	THIRD GRADE	2	61.8	.065	-	-	.02	91.2	83.0	87.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10	THIRD GRADE	1	64.7	-	-	-	.02	91.0	86.2	88.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10	INTERMEDIATE	1	62.8	-	-	-	.02	96.8	87.6	92.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11	THIRD GRADE	2	64.5	.033	0	.000	.01	91.3	84.8	88.1	9.1	142	90	113	129	157	184	219	250	322	361	410	1.0	1.2		
11	THIRD GRADE	1	63.0	.030	0	.001	.00	91.6	87.6	89.6	9.0	141	90	114	128	154	180	220	262	356	404	420	1.0	2.0		
11	THIRD GRADE	1	61.0	-	-	-	.01	92.0	84.5	88.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11	THIRD GRADE	1	62.5	-	-	-	.02	93.0	84.7	88.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11	INTERMEDIATE	1	53.9	-	-	-	.00	97.0	86.0	91.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11	INTERMEDIATE	1	67.8	.020	0	-	.00	91.1	87.7	89.4	9.6	146	88	-	143	182	201	220	-	299	-	370	1.0	2.0		
12	THIRD GRADE	2	58.7	.027	2	.001	.01	91.5	84.1	87.8	8.8	133	94	107	116	131	146	191	272	354	380	410	1.0	1.0		
12	THIRD GRADE	3	57.9	.030	1	.001	.03	92.5	83.9	88.2	8.9	138	86	95	110	136	162	226	272	333	372	416	1.0	2.0		
12	THIRD GRADE	2	62.3	.012	1	.001	.02	92.5	84.0	88.3	9.7	130	86	98	112	132	153	198	224	297	335	400	1.0	1.0		
12	THIRD GRADE	1	53.0	.003	1	.001	.01	95.4	86.4	90.9	9.9	141	89	106	128	163	202	236	256	325	364	398	1.0	2.0		
12	THIRD GRADE	1	56.3	-	-	-	.02	91.3	82.4	86.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12	THIRD GRADE	1	56.0	.018	1	.001	.01	91.0	82.2	86.6	8.9	147	92	111	131	163	194	24	289	333	353	400	1.0	1.5		
12	INTERMEDIATE	1	54.4	-	-	-	.01	97.0	86.2	91.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12	INTERMEDIATE	1	59.6	.020	1	-	.00	91.0	83.1	87.1	8.3	-	88	-	114	-	-	210	-	314	-	418	1.0	1.0		
13	THIRD GRADE	2	61.9	-	-	-	.00	90.7	82.4	86.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
13	THIRD GRADE	3	58.8	.010	6	.000	.01	91.7	85.5	88.6	8.3	145	95	117	129	153	181	224	265	318	343	406	.5	.5		
13	THIRD GRADE	1	57.7	-	-	-	.02	95.1	85.9	90.5	8.4	149	98	-	138	166	-	231	-	336	-	416	.0	.0		
13	THIRD GRADE	2	56.5	-	-	-	.02	93.3	85.0	89.2	8.9	142	94	-	128	155	-	222	-	345	-	424	.0	.0		
13	THIRD GRADE	3	59.9	-	-	-	.02	91.6	84.9	88.3	8.2	147	109	-	137	157	-	228	-	323	-	398	.0	.0		
13	THIRD GRADE	1	63.8	-	-	-	.01	91.3	84.0	87.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
13	THIRD GRADE	1	58.4	-	-	-	.02	95.0	87.3	91.2	8.6	146	99	-	134	159	-	229	-	341	-	412	.0	.0		
13	REGULAR	3	56.4	.027	0	.000	.01	93.7	84.7	89.2	8.6	147	94	113	133	163	190	232	272	330	358	406	1.1	1.7		
13	INTERMEDIATE	3	59.2	.010	4	.000	.03	95.1	86.7	90.9	8.1	146	92	114	128	152	179	224	249	301	330	386	1.0	1.0		

TABLE 7. - MOTOR GASOLINE SURVEY, SUMMER 1974  
ANALYSES OF UNLEADED GASOLINE--CONTINUED

DISTRICT	GRADE	SAM- PLES	GR., ASTM D287 API	SULF., ASTM D1266 WT %	GUM, ASTM D381 MG	PHOS., ASTM D3231 G/GAL	LEAD, ASTM D526 G/GAL	OCTANE NUMBER		RVP, ASTM D323 LB	20V/L ASTM D439 F	TEMPERATURE, F (CORRECTED TO 760 MM HG)										RES LOSS % %				
								RES, ASTM D2699	NOT, ASTM D2700			R+M ---		DISTILLATION, ASTM D86										EP	RES %	LOSS %
														IBP	5	10	20	30	50	70	90	95				
14	THIRD GRADE	2	64.0	.010	5	.000	.01	91.4	82.5	87.0	148	94	114	131	154	170	220	260	340	382	436	1.0	1.0			
14	THIRD GRADE	1	59.5	---	---	---	.02	90.6	81.7	86.2	---	---	---	---	---	---	---	---	---	---	---	---	---			
14	THIRD GRADE	1	66.8	.069	1	.000	.01	90.4	86.9	88.7	145	96	115	134	170	191	220	243	340	387	416	1.0	1.7			
14	THIRD GRADE	2	71.8	.010	1	.000	.02	92.7	88.0	90.4	147	86	108	128	152	173	207	224	259	309	376	1.0	2.0			
14	INTERMEDIATE	5	57.3	.012	1	.001	.03	96.8	86.0	91.4	139	93	114	129	155	180	217	252	304	327	380	1.0	2.0			
14	INTERMEDIATE	1	55.7	.020	---	---	.01	94.7	85.6	90.2	136	92	109	122	151	185	238	278	328	356	424	1.0	3.0			
15	THIRD GRADE	3	57.9	.007	1	.002	.01	91.4	84.5	88.0	153	96	122	137	159	177	230	269	322	345	402	1.0	1.0			
15	THIRD GRADE	2	61.4	.008	2	.001	.03	90.0	83.5	86.8	142	95	113	128	156	181	223	260	321	347	405	1.0	1.5			
15	THIRD GRADE	2	58.2	.010	1	.001	.02	91.5	82.2	86.9	145	94	116	128	148	166	210	257	316	337	396	1.0	1.0			
15	THIRD GRADE	2	59.6	.007	5	.001	.02	92.4	83.8	88.1	128	78	97	111	134	165	220	259	310	331	366	1.0	3.0			
15	REGULAR	1	54.9	.001	---	---	.01	94.7	85.2	90.0	127	85	89	108	140	177	234	278	299	354	398	1.0	4.0			
15	INTERMEDIATE	2	57.2	.010	2	.000	.01	96.8	86.5	91.7	142	94	114	128	153	178	218	250	300	325	370	1.0	2.0			
15	INTERMEDIATE	1	64.6	.010	0	---	.01	91.4	86.6	89.0	---	85	---	130	---	---	---	---	---	---	---	397	1.0	2.0		
16	THIRD GRADE	3	58.2	.016	1	.000	.01	91.3	84.2	87.8	146	97	115	133	159	186	231	273	331	363	406	1.0	1.5			
16	THIRD GRADE	2	56.2	.021	0	.000	.02	90.5	82.7	86.6	148	101	118	134	162	187	234	281	351	376	405	1.0	1.5			
16	THIRD GRADE	2	52.0	.010	1	.001	.03	91.8	82.7	87.3	149	102	116	136	171	205	251	287	337	366	422	1.0	2.0			
16	THIRD GRADE	1	58.6	.008	---	---	.00	97.1	86.3	91.7	143	100	113	131	157	183	218	251	300	353	403	1.0	2.0			
16	THIRD GRADE	2	58.9	.008	3	.000	.03	90.8	82.1	86.5	145	108	121	133	148	163	208	261	328	355	407	1.0	1.5			
16	THIRD GRADE	3	58.3	.008	2	.001	.02	91.5	82.5	87.0	145	103	121	132	150	166	211	261	326	353	404	1.0	1.0			
16	REGULAR	2	53.8	.005	1	.000	.02	94.5	84.8	89.7	142	98	114	126	149	169	220	268	311	332	372	1.0	1.5			
16	INTERMEDIATE	2	59.6	.010	1	.000	.02	96.6	86.3	91.5	145	90	111	128	155	177	215	250	323	361	412	1.0	1.0			
17	THIRD GRADE	4	58.8	.011	1	.001	.02	91.9	84.8	88.4	142	93	111	125	147	171	225	266	317	343	397	1.0	1.5			
17	THIRD GRADE	1	54.6	.013	---	---	.02	91.2	82.7	87.0	140	95	108	124	150	181	230	277	330	363	398	1.0	2.5			
17	THIRD GRADE	2	54.1	.002	---	---	.01	91.1	82.6	86.9	141	85	100	120	152	184	236	279	328	367	385	1.5	2.0			
17	THIRD GRADE	1	55.3	.011	---	---	.01	97.3	85.5	91.4	145	96	113	132	159	181	214	244	287	314	356	1.0	2.0			
17	THIRD GRADE	3	55.5	.044	2	.001	.01	91.3	81.9	86.6	152	96	115	134	161	186	229	277	341	372	420	1.2	1.3			
17	THIRD GRADE	5	58.3	.065	1	.001	.02	91.5	82.4	87.0	143	93	116	128	152	171	217	259	320	354	397	1.1	1.4			
17	THIRD GRADE	4	58.4	.007	1	.001	.00	91.5	84.0	87.8	147	95	118	136	158	180	218	249	293	316	360	1.0	1.3			
17	REGULAR	2	57.0	.032	2	.001	.02	93.5	84.8	89.2	138	89	105	122	156	189	231	262	306	337	386	1.0	2.0			
17	INTERMEDIATE	1	54.5	---	---	---	.05	92.1	82.6	87.4	---	---	---	---	---	---	---	---	---	---	---	---	---			
17	INTERMEDIATE	4	56.8	.037	2	.001	.01	97.1	88.1	91.6	144	92	119	135	160	182	218	248	302	330	374	1.2	1.5			
17	INTERMEDIATE	1	55.4	.040	1	---	.00	91.9	82.4	87.2	---	95	---	130	---	---	---	---	---	---	---	419	1.0	1.0		

TABLE 8. - Cumulative percents of samples of all grades by research octane numbers by districts, motor-gasoline survey, summer 1974

Research octane number	District																	Cumulative total samples
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
88													1.2					5
89										.6			2.6					12
90			.5	.3	.3		.6			.6	.5		5.6	1.9	1.6	2.2	.5	42
91	5.2	3.5	2.0	3.4	4.3	7.3	6.4	1.3		10.5	7.7	3.3	17.7	7.4	10.4	6.6	8.2	243
92	8.3	9.9	9.8	11.1	15.6	15.5	14.6	4.4	26.6	34.5	25.1	12.0	37.9	19.5	32.0	14.6	15.4	667
93	22.9	22.6	30.5	20.9	26.2	29.1	31.6	27.9	51.6	49.7	48.7	33.3	48.1	39.7	40.8	24.1	30.8	1,248
94	46.9	49.7	54.4	46.1	62.1	50.0	50.3	48.0	53.1	51.5	57.9	54.7	53.7	44.7	46.4	40.9	50.0	1,926
95	57.3	56.6	59.8	52.5	66.1	57.3	56.1	54.1	54.7	55.6	59.5	56.7	57.2	50.2	52.8	53.3	55.5	2,129
96	59.4	58.0	60.7	52.9	67.4	60.0	59.1	55.5	54.7	57.3	59.5	57.3	64.2	52.9	55.2	56.2	55.5	2,205
97	60.4	60.5	62.4	53.9	68.1	61.8	60.8	57.6	59.4	61.4	64.1	59.3	68.8	61.1	56.8	62.8	59.9	2,321
98	65.6	66.3	63.9	61.3	74.8	70.9	64.9	59.8	62.5	69.0	68.2	62.7	83.7	74.7	60.8	63.5	64.3	2,562
99	84.4	86.1	87.1	87.5	94.4	92.7	87.7	85.2	96.9	93.0	94.4	88.0	94.4	93.4	78.4	81.0	89.6	3,357
100	95.8	95.8	94.9	96.3	99.7	100.0	100.0	96.9	100.0	99.4	99.5	99.3	99.5	100.0	98.4	100.0	100.0	3,689
101	100.0	99.3	97.8	99.7	100.0			99.6		100.0	100.0	100.0	100.0		100.0			3,744
102		100.0	100.0	100.0				100.0										3,758



TABLE 9. - Cumulative percents of samples of all grades by motor octane numbers by districts, motor-gasoline survey, summer 1974

Motor octane number	District																	Cumulative total samples
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
79													.2					1
80													.2					1
81				.3			.6						.7			.7		6
82	2.1	.7	1.5	1.4	2.0	2.7	2.9	1.3	1.6	1.8	2.1	2.7	4.0	1.2	2.4	2.2	6.0	81
83	10.4	7.9	7.8	4.7	5.3	10.9	8.8	7.4	6.3	3.5	5.1	6.7	6.3	4.3	5.6	8.0	8.8	252
84	17.7	15.0	13.9	10.5	11.6	14.5	15.2	10.0	12.5	9.4	8.2	12.7	18.6	18.7	6.4	16.1	12.1	509
85	24.0	19.9	15.9	16.3	18.9	24.5	24.0	13.1	43.8	33.3	22.1	18.0	40.0	38.5	13.6	40.9	40.7	950
86	38.5	33.7	37.6	37.6	57.1	41.8	45.0	24.0	56.3	49.1	47.2	35.3	49.5	48.6	39.2	54.7	54.9	1,625
87	55.2	53.8	57.1	52.5	66.1	57.3	55.6	52.8	56.3	53.8	55.9	54.7	56.5	51.4	55.2	56.9	58.8	2,101
88	60.4	60.0	61.0	53.2	67.1	61.8	60.2	57.6	56.3	56.1	60.5	58.0	59.3	53.7	56.8	56.9	58.8	2,216
89	60.4	61.7	61.5	53.2	67.4	61.8	60.8	58.1	60.9	57.9	60.5	58.7	66.3	59.5	56.8	57.7	59.3	2,282
90	67.7	64.7	64.6	55.9	69.8	62.7	60.8	59.4	64.1	59.1	60.5	60.0	69.3	67.7	60.8	59.9	67.0	2,396
91																		
92	80.2	76.7	78.5	67.1	79.1	74.5	69.0	74.7	70.3	64.9	64.6	74.7	82.1	84.4	83.2	78.1	85.2	2,868
93	95.8	97.5	96.1	93.9	91.4	94.5	94.2	94.3	82.8	90.6	86.7	94.0	92.3	94.9	97.6	96.4	97.3	3,531
94	100.0	99.8	100.0	99.7	96.3	100.0	97.7	100.0	98.4	99.4	96.4	100.0	97.4	99.2	100.0	100.0	99.5	3,716
95		100.0		100.0	100.0		100.0		100.0	99.4	99.5		98.4	100.0			100.0	3,747
										99.4	99.5		99.1					3,750
96										99.4	100.0		100.0					3,755
97										100.0								3,756

TABLE 10. - Cumulative percents of all grades by antiknock (octane) index (RON + MON)/2 by districts, motor-gasoline survey, summer 1974

Antiknock index	District																	Cumulative total samples
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
83													.2					1
84													.2					1
85													1.6					7
86	1.0		.5	.3	.7	.9	.6				.5		3.5	.8	1.6	2.2	1.1	33
87	5.2	3.9	4.4	4.1	4.7	9.1	7.6	1.7	1.6	4.1	6.2	4.0	10.5	4.3	5.6	8.8	8.8	210
88	13.5	12.5	12.0	10.2	13.0	14.5	12.3	6.1	18.8	12.9	11.8	14.0	24.4	16.7	8.0	13.1	13.2	514
89	21.9	19.9	15.4	15.9	19.6	23.6	24.0	14.0	50.0	45.6	32.8	20.0	45.1	37.4	32.8	24.1	36.8	1,010
90	40.6	41.1	47.6	45.1	61.5	47.3	49.7	43.7	54.7	54.4	54.9	47.3	54.0	49.4	51.2	53.3	54.9	1,869
91	58.3	56.6	60.2	52.5	66.4	58.2	55.6	54.1	54.7	54.4	59.5	56.7	56.7	51.8	55.2	55.5	56.6	2,140
92	60.4	59.6	62.2	53.2	67.4	60.9	60.2	57.2	56.3	56.7	60.5	58.0	61.6	54.5	56.8	57.7	58.2	2,231
93	60.4	61.2	62.2	53.2	67.8	61.8	60.8	58.1	57.8	58.5	60.5	58.7	67.7	57.2	56.8	57.7	58.8	2,282
94	64.6	63.3	62.2	54.9	71.4	63.6	62.0	58.5	65.6	60.2	60.5	60.7	70.9	70.8	56.8	62.8	62.6	2,390
95	79.2	82.2	77.8	78.0	83.4	82.7	77.2	76.0	73.4	79.5	77.4	80.7	88.8	89.5	79.2	78.8	89.6	3,066
96	100.0	99.1	99.8	96.6	96.0	100.0	98.8	99.6	98.4	98.8	97.4	98.7	98.1	100.0	100.0	99.3	99.5	3,706
97		99.5	100.0	100.0	100.0		100.0	100.0	100.0	99.4	99.5	100.0	98.8			100.0	100.0	3,747
98													99.8					3,755
99		100.0								100.0	100.0		100.0					3,756

TABLE 11. - Locations and numbers of samples, motor gasoline survey, summer 1974

State	Location	Samples	State	Location	Samples
District 1 (Northeast)			District 11 (South Plains)		
Maine	Portland	42	Kansas	Coffeyville	5
Massachusetts	Boston area	54		McPherson	10
	2 Locations	96		Wichita	46
District 2 (Mid-Atlantic Coast)			Oklahoma	Bartlesville	6
Maryland	Baltimore	64		Oklahoma City	3
New Jersey and New York	New York City area	104	Texas	Tulsa	75
New York	Albany	36		Dallas-Fort Worth	50
Pennsylvania	Harrisburg	18		7 Locations	195
Pennsylvania and New Jersey	Philadelphia area	144	District 12 (Southern Texas)		
Virginia	Richmond	67	Texas	Beaumont	3
	6 Locations	433		Houston area	121
District 3 (Southeast)				San Antonio	26
				3 Locations	150
Alabama	Birmingham	69	District 13 (South Mountain States)		
	Mobile	29	Arizona	Phoenix	59
Florida	Jacksonville	12		Tucson	14
	Miami area	69		Bakersfield	28
	Tampa	16	California	Denver	82
Georgia	Atlanta	87	Colorado	Las Vegas	24
North Carolina	Wilmington	30	Nevada	Reno	7
South Carolina	Charleston	4		Albuquerque	69
Tennessee	Chattanooga	35		Amarillo	66
Undesignated	-	59	New Mexico	El Paso	23
	9 Locations	410	Texas	Lubbock	22
District 4 (Appalachian)				Salt Lake City	36
				11 Locations	430
New York	Buffalo	88	District 14 (North Mountain States)		
Ohio	Cincinnati	65	Idaho	Boise	87
	Cleveland	68		Billings	53
	Columbus	7		Great Falls	6
Pennsylvania	Bradford	2	Washington	Pasco	25
	Pittsburgh	51		Spokane	79
West Virginia	Charleston	16		Cody	7
	7 Locations	297	Wyoming	6 Locations	257
District 5 (Michigan)			District 15 (Pacific Northwest)		
Michigan	Central Michigan	79	Oregon	Portland	14
	Detroit	189		Bellingham	14
	Northern Peninsula	33		Seattle	97
	3 Locations	301	Washington	3 Locations	125
District 6 (North Illinois)			District 16 (Northern California)		
Illinois and Indiana	Chicago area	108	California	San Francisco Bay area	137
Iowa	Davenport	2		1 Location	137
	2 Locations	110	District 17 (Southern California and Hawaii)		
District 7 (Central Mississippi)			California	Los Angeles area	160
Indiana	Evansville	10		Honolulu	22
Kentucky	Indianapolis	58		2 Locations	182
Missouri and Illinois	Louisville	51			
	St. Louis area	52	Total		
	4 Locations	171	80 locations		
District 8 (Lower Mississippi)			3,758		
Arkansas	El Dorado	3			
	Little Rock	46			
Louisiana	Baton Rouge	35	District	Locations	Samples
	Lake Charles	2			Percent
	New Orleans	70	1	2	96
Tennessee	Memphis	71	2	6	433
	Nashville	2	3	9	410
	7 Locations	229	4	7	297
District 9 (North Plains)			5	3	301
Minnesota	Minneapolis-St. Paul	54	6	2	110
North Dakota	Williston	10	7	4	171
	2 Locations	64	8	7	229
District 10 (Central Plains)			9	2	64
Iowa	Des Moines	34	10	5	171
Kansas and Missouri	Kansas City area	59	11	7	195
Kansas	Phillipsburg	6	12	3	150
Nebraska	Omaha	62	13	11	430
	Scottsbluff	10	14	6	257
	5 Locations	171	15	3	125
			16	1	137
			17	2	182
			Total	80	3,758
					100.0





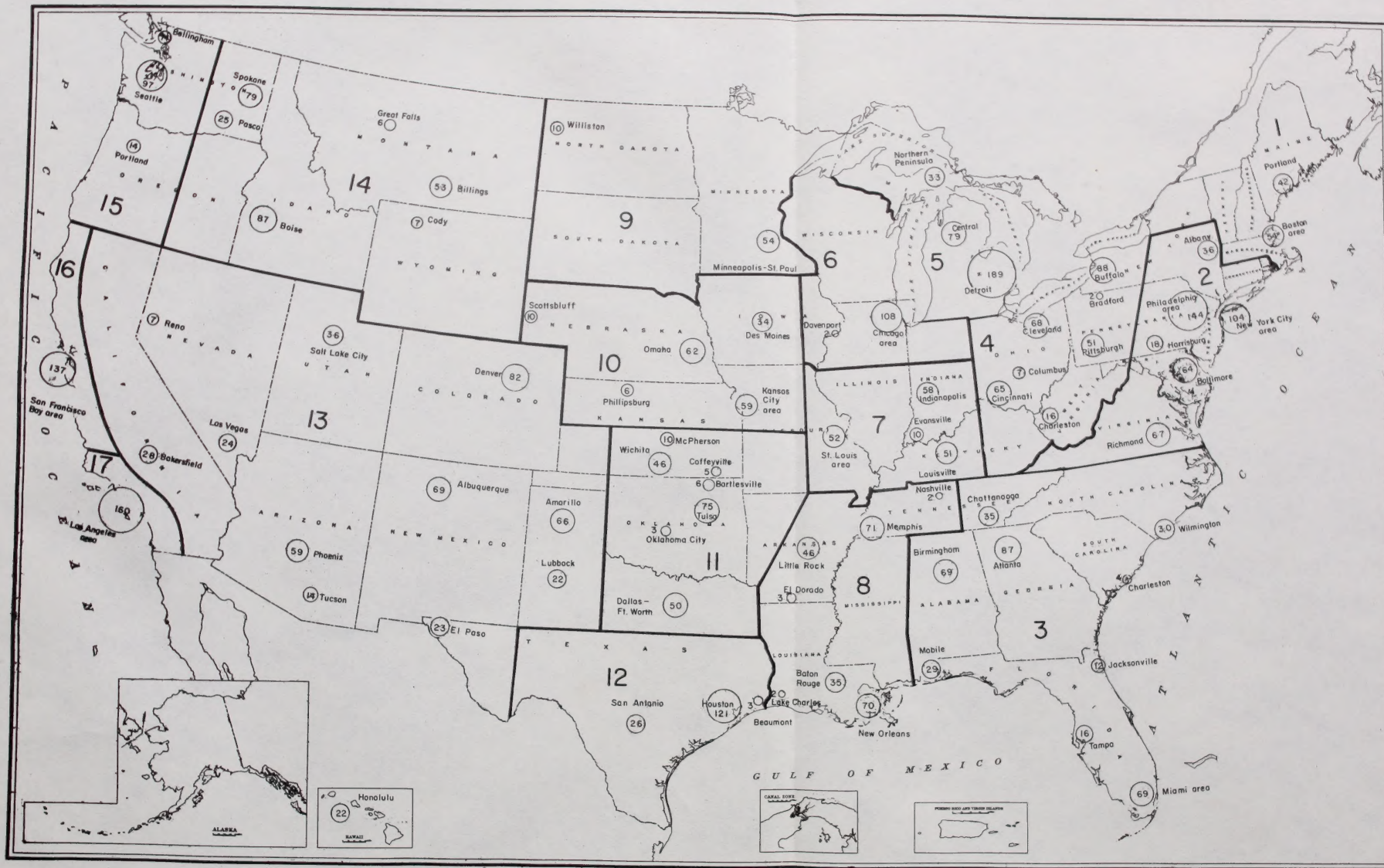


FIGURE 6.—Map Showing Locations and Numbers of Samples for the National Motor Gasoline Survey, Summer 1974.







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